

Ox-LDL R-1 (E-19): sc-11650

BACKGROUND

The oxidized low density lipoprotein (lectin-like) receptor-1, Ox-LDL R-1, is a type II membrane protein that is a member of the C-type lectin family and acts as a cell-surface receptor for oxidized low density lipoprotein (Ox-LDL). Ox-LDL plays a role in early atherosclerosis, which includes the transformation of monocyte-derived macrophages to foam cells in atherosclerotic lesions. The binding of Ox-LDL to Ox-LDL R-1 may also trigger the activation of the NF κ B signal transduction pathway. Ox-LDL R-1, also designated scavenger receptor class E, member 1 (SCARE1); lectin-type oxidized LDL receptor 1 (LOX-1); and CLEC8A, is expressed by vascular endothelial cells, smooth muscle cells and macrophages. It is expressed endogenously as a precursor form with N-linked high mannose carbohydrate chains and as a mature form due to further glycosylation. The N-linked glycosylation of Ox-LDL R-1 appears to be necessary for adequate transportation to the cell surface and efficient ligand binding.

REFERENCES

- Kataoka, H., et al. 1999. Expression of lectinlike oxidized low-density lipoprotein receptor-1 in human atherosclerotic lesions. *Circulation* 99: 3110-3117.
- Dhaliwal, B.S. et al. 1999. Scavenger receptors and oxidized low density lipoproteins. *Clin. Chim. Acta* 286: 191-205.
- Aoyama, T., et al. 1999. Structure and chromosomal assignment of the human lectin-like oxidized low-density-lipoprotein receptor-1 (LOX-1) gene. *Biochem. J.* 339: 177-184.
- Murase, T., et al. 2000. Identification of soluble forms of lectin-like oxidized LDL receptor-1. *Arterioscler. Thromb. Vasc. Biol.* 20: 715-720.
- Kataoka, H., et al. 2000. Biosynthesis and post-translational processing of lectin-like oxidized low density lipoprotein receptor-1 (LOX-1). N-linked glycosylation affects cell-surface expression and ligand binding. *J. Biol. Chem.* 275: 6573-6579.
- Cominacini, L., et al. 2000. Oxidized low density lipoprotein (ox-LDL) binding to Ox-LDL receptor-1 in endothelial cells induces the activation of NF κ B through an increased production of intracellular reactive oxygen species. *J. Biol. Chem.* 275: 12633-12638.

CHROMOSOMAL LOCATION

Genetic locus: OLR1 (human) mapping to 12p13.2.

SOURCE

Ox-LDL R-1 (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Ox-LDL R-1 of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-11650 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Ox-LDL R-1 (E-19) is recommended for detection of Ox-LDL receptor-1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Ox-LDL R-1 (E-19) is also recommended for detection of Ox-LDL receptor-1 in additional species, including equine.

Suitable for use as control antibody for Ox-LDL R-1 siRNA (h): sc-40185, Ox-LDL R-1 shRNA Plasmid (h): sc-40185-SH and Ox-LDL R-1 shRNA (h) Lentiviral Particles: sc-40185-V.

Molecular Weight of Ox-LDL R-1: 32 kDa.

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) 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.

SELECT PRODUCT CITATIONS

- Bruneau, N., et al. 2003. Lectin-like Ox-LDL receptor is expressed in human INT-407 intestinal cells: involvement in the transcytosis of pancreatic bile salt-dependent lipase. *Mol. Biol. Cell* 14: 2861-2875.
- Arredouani, M.S., et al. 2005. MARCO is the major binding receptor for unopsonized particles and bacteria on human alveolar macrophages. *J. Immunol.* 175: 6058-6064.

RESEARCH USE

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


 MONOS
 Satisfaction
 Guaranteed

Try **Ox-LDL R-1 (LOX19-22): sc-66155**, our highly recommended monoclonal alternative to Ox-LDL R-1 (E-19).