

Anti-LOX-1/OLR1 Antibody
Catalog # ABO11141**Specification**

Anti-LOX-1/OLR1 Antibody - Product Information

Application	WB
Primary Accession	P78380
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Oxidized low-density lipoprotein receptor 1(OLR1) detection. Tested with WB in Human;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-LOX-1/OLR1 Antibody - Additional Information

Gene ID 4973

Other Names

Oxidized low-density lipoprotein receptor 1, Ox-LDL receptor 1, C-type lectin domain family 8 member A, Lectin-like oxidized LDL receptor 1, LOX-1, Lectin-like oxLDL receptor 1, hLOX-1, Lectin-type oxidized LDL receptor 1, Oxidized low-density lipoprotein receptor 1, soluble form, OLR1, CLEC8A, LOX1

Calculated MW

30959 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human, Rat

Subcellular Localization

Cell membrane; Lipid-anchor. Cell membrane; Single-pass type II membrane protein. Membrane raft. Secreted. A secreted form also exists. Localization to membrane rafts requires palmitoylation.

Tissue Specificity

Expressed at high level in endothelial cells and vascular-rich organs such as placenta, lung, liver and brain, aortic intima, bone marrow, spinal cord and substantia nigra. Also expressed at the surface of dendritic cells. Widely expressed at intermediate and low level. .

Protein Name

Oxidized low-density lipoprotein receptor 1(Ox-LDL receptor 1)

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence in the middle region of human LOX 1(114-127aa NEKSKEQMELHHQN), different from the related rat sequence by three amino acids.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Contains 1 C-type lectin domain.

Anti-LOX-1/OLR1 Antibody - Protein Information

Name OLR1

Synonyms CLEC8A, LOX1

Function

Receptor that mediates the recognition, internalization and degradation of oxidatively modified low density lipoprotein (oxLDL) by vascular endothelial cells. OxLDL is a marker of atherosclerosis that induces vascular endothelial cell activation and dysfunction, resulting in pro-inflammatory responses, pro-oxidative conditions and apoptosis. Its association with oxLDL induces the activation of NF-kappa-B through an increased production of intracellular reactive oxygen and a variety of pro-atherogenic cellular responses including a reduction of nitric oxide (NO) release, monocyte adhesion and apoptosis. In addition to binding oxLDL, it acts as a receptor for the HSP70 protein involved in antigen cross-presentation to naive T-cells in dendritic cells, thereby participating in cell-mediated antigen cross-presentation. Also involved in inflammatory process, by acting as a leukocyte-adhesion molecule at the vascular interface in endotoxin-induced inflammation. Also acts as a receptor for advanced glycation end (AGE) products, activated platelets, monocytes, apoptotic cells and both Gram-negative and Gram-positive bacteria.

Cellular Location

Cell membrane; Lipid-anchor. Cell membrane; Single-pass type II membrane protein. Membrane raft. Secreted. Note=A secreted form also exists. Localization to membrane rafts requires palmitoylation

Tissue Location

Expressed at high level in endothelial cells and vascular-rich organs such as placenta, lung, liver and brain, aortic intima, bone marrow, spinal cord and substantia nigra. Also expressed at the surface of dendritic cells. Widely expressed at intermediate and low level.

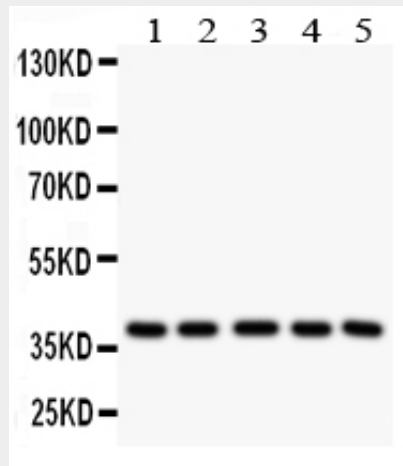
Anti-LOX-1/OLR1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)

- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-LOX-1/OLR1 Antibody - Images



Anti- LOX1 antibody, ABO11141, Western blotting
All lanes: Anti LOX1 (ABO11141) at 0.5ug/ml
Lane 1: Rat Liver Tissue Lysate at 50ug
Lane 2: HELA Whole Cell Lysate at 40ug
Lane 3: K562 Whole Cell Lysate at 40ug
Lane 4: HELA Whole Cell Lysate at 40ug
Lane 5: RAJI Whole Cell Lysate at 40ug
Predicted bind size: 31KDa
Observed bind size: 38KDa

Anti-LOX-1/OLR1 Antibody - Background

OLR1(oxidized low density lipoprotein(lectin-like) receptor 1) also called CLEC8A, LOX-1, SCARE1, is a receptor protein which belongs to the C-type lectin superfamily. The OLR1 gene encodes a cell-surface endocytosis receptor for oxidized low density lipoprotein(OxLDL). The OLR1 gene is mapped on 12p13.2. Incubation of the cells with LDL had no effect on LOX1 expression, but incubation with OxLDL resulted in a dose-dependent increase in LOX1 mRNA and protein expression; however, very high concentrations of OxLDL caused a decrease in OxLDL expression, perhaps indicating toxic effects on endothelial cells. LOX1 was also expressed in macrophages, but not in vascular smooth muscle cells. The findings suggested a role for LOX1 in the pathophysiology of atherosclerotic cardiovascular disease. LOX1 expression was detected in all choroidal neovascular membranes, regardless of structure, whereas there was no evidence of LOX1 within the posterior segments of normal eyes. LOX1 plays an active role in the pathogenesis of choroidal neovascularization, especially in ARMD.