

Anti-LOX-1/OLR1 Picoband Antibody

Catalog # ABO12882

Product Information

Application	WB
Primary Accession	P78380
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Oxidized low-density lipoprotein receptor 1(OLR1) detection. Tested with WB in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

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
Application Details	Western blot, 0.1-0.5 µg/ml, Human
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. .
Source	Eukaryota
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human LOX-1/OLR1 (162-197aa SFNWEKSQEKCLSLDAKLLKINSTADLDFIQQAISY), different from the related rat sequence by thirteen 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.

Protein Information

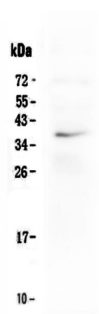
Name	OLR1
Synonyms	CLEC8A, LOX1
Function	Receptor that mediates the recognition, internalization and degradation of oxidatively modified low density lipoprotein (oxLDL) by vascular endothelial cells. OxLDL is a marker of atherosclerosis that induces vascular endothelial cell activation and dysfunction, 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.

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). This 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.

Images

Figure 1. Western blot analysis of LOX-1/OLR1 using



anti-LOX-1/OLR1 antibody (ABO12882).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.