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OLR1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8849c

Product Information

Application	WB, IHC-P, E
Primary Accession	P78380
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	30959
Antigen Region	64-92

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
Target/Specificity	This OLR1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 64-92 amino acids from the Central region of human OLR1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	OLR1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

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.

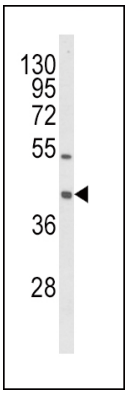
Background

OLR1 is a low density lipoprotein receptor that belongs to the C-type lectin superfamily. This protein binds, internalizes and degrades oxidized low-density lipoprotein. This protein may be involved in the regulation of Fas-induced apoptosis. This protein may play a role as a scavenger receptor.

References

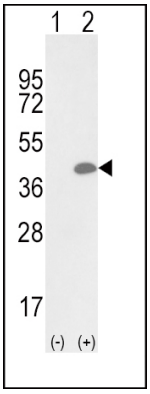
Predazzi,I.M.,et.al., Ann. Hum. Biol. 37 (2), 136-148 (2010)

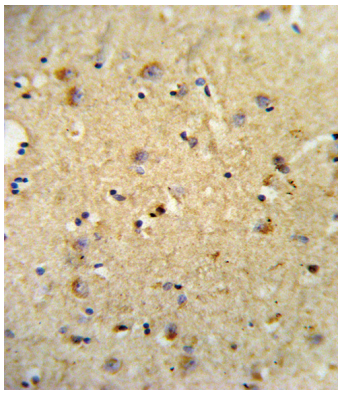
Images



Western blot analysis of OLR1 Antibody (Center) (Cat. #AP8849c) in HL-60 cell line lysates (35ug/lane).OLR1 (arrow) was detected using the purified Pab.

Western blot analysis of OLR1 (arrow) using rabbit polyclonal OLR1 Antibody (Center) (Cat. #AP8849c). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the OLR1 gene (Lane 2) .





Formalin-fixed and paraffin-embedded human brain tissue reacted with OLR1 Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Citations

- Cytochrome b561 regulates iron metabolism by activating the Akt/mTOR pathway to promote Breast Cancer Cells proliferation