

## Product datasheet for **AM26237BT-N**

### LOX 1 (OLR1) (71-273) Mouse Monoclonal Antibody [Clone ID: 23C11]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	23C11
Applications:	FN, IF
Recommended Dilution:	<b>Flow Cytometry</b> (1,2): 10 µg/ml antibody used on human peripheral blood myeloid DC and macrophages. The typical starting working dilution is 1/50. <b>Functional Assays</b> (1,3): Antibody totally prevented Hsp70 binding to LOX-1-CHO but not mock-transfected CHO cells (Ref 1). Neutralizes LOX-1 and inhibits Hsp70 binding to dendritic cells and Hsp70-induced antigen cross-presentation. In vivo, targeting LOX-1 with a tumor antigen using anti-LOX-1 antibody 23C11 induces anti-tumor immunity. <b>Immunofluorescence</b> (2). <i>Positive Control:</i> Human APCs.
Reactivity:	Human, Mouse
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Fusion protein of extracellular domain (aa 71-273) of Human LOX-1 with murine Fcγ1 (LOX-1-muFc) produced in PEAK cells
Specificity:	The monoclonal antibody 23C11 recognizes oxidized low-density lipoprotein receptor-1 (LOX-1).
Formulation:	PBS Label: Biotin State: Liquid 0.2 µm filtered Ig fraction Stabilizer: 0.1% BSA Preservative: 0.02% Sodium Azide
Concentration:	lot specific
Purification:	Protein G Chromatography
Conjugation:	Biotin
Storage:	Store undiluted at 2-8°C.
Stability:	Shelf life: one year from despatch.



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**Gene Name:** oxidized low density lipoprotein receptor 1

**Database Link:** [Entrez Gene 4973 Human P78380](#)

**Background:** LOX-1 is a single-pass type II membrane protein (~45 kDa) and belongs to the C-type lectin-like protein superfamily. LOX-1 is expressed at high level in endothelial cells and vascular-rich organs such as placenta, lung, liver, brain aortic intima, bone marrow, spinal cord and substantia nigra. It is also expressed on the surface of dendritic cells. This unique scavenger receptor LOX-1 plays important roles in atherogenesis. LOX-1 mediates the recognition, internalization and degradation of oxidatively modified low density lipoprotein (oxLDL) by vascular endothelial cells. OxLDL is a marker of atherosclerosis, inducing vascular endothelial cell activation and dysfunction, resulting in pro-inflammatory responses, pro-oxidative conditions and apoptosis. LOX-1 associates with oxLDL inducing 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, LOX-1 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. LOX-1 is involved in the inflammatory process, by acting as a leukocyte-adhesion molecule at the vascular interface in endotoxin-induced inflammation. LOX-1 also acts as a receptor for advanced glycation end (AGE) products, activated platelets, monocytes, apoptotic cells and both Gram-negative and Gram-positive bacteria. The LOX-1 gene is a so-called immediate early gene that is dynamically modulated by several factors in vitro and in vivo. LOX-1 expression is induced by stimuli such as inflammatory cytokines, OxLDL, TNF-alpha, TGF-beta, and ANG II in vitro, and several proatherogenic factors in vivo.

**Synonyms:** LOX-1, Ox-LDL receptor 1, Ox-LDL receptor 1 soluble form, sLOX1, sLOX-1, CLEC8A