



# Recombinant Protein Technical Manual

## Recombinant Human OLR1/LOX1 Protein (His Tag)

RPES0632

### Product Data:

**Product SKU:** RPES0632

**Size:** 10µg

**Species:** Human

**Expression host:** Human Cells

**Uniprot:** P78380

### Protein Information:

**Molecular Mass:** 25.39 kDa

**AP Molecular Mass:** 74 kDa

**Tag:** C-His

**Bio-activity:**

**Purity:** > 95% as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.2.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** 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; Lectin-Like oxLDL Receptor 1; hLOX; Lectin-Type Oxidized LDL Receptor 1; OLR1; CLEC8A; LOX1; LOXIN; SCARE1; SLOX1

## Immunogen Information:

**Sequence:** Ser61-Gln273

## Background:

Oxidized Low-Density Lipoprotein Receptor 1 (Ox-LDL Receptor 1) is a secreted, single-pass type II membrane protein which belongs to the C-type lectin superfamily. Ox-LDL Receptor 1 is expressed at high levels in endothelial cells and vascular-rich organs such as placenta, lung, liver, brain, aortic intima, bone marrow, spinal cord and substantia nigra. The expression of Ox-LDL Receptor 1 is induced by inflammatory cytokines such as TNF, IFNG and IL6 by pathological conditions, such as hyperlipidemia, hypertension and diabetes mellitus. Ox-LDL Receptor 1 mediates the recognition, internalization and degradation of oxidatively modified low density lipoprotein (OxLDL) by vascular endothelial cells. Ox-LDL Receptor 1 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. Ox-LDL Receptor 1 also binds to oxLDL, which 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. It also participates in inflammatory process, by acting as a leukocyte-adhesion molecule at the vascular interface in endotoxin-induced inflammation.