

## LOX-1/OLR1 Protein, Rat (HEK293, Fc)

Cat. No.:	HY-P73836
Synonyms:	Oxidized low-density lipoprotein receptor 1; LOX-1; OLR1; CLEC8A
Species:	Rat
Source:	HEK293
Accession:	O70156 (L60-Q364)
Gene ID:	140914
Molecular Weight:	Approximately 66&35 kDa

### PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	LOX-1/OLR1 Protein functions as a receptor that plays a crucial role in the recognition, internalization, and degradation of oxidatively modified low-density lipoprotein (oxLDL) by vascular endothelial cells. OxLDL, a marker of atherosclerosis, induces endothelial cell activation and dysfunction, leading to pro-inflammatory responses, pro-oxidative conditions, and apoptosis. The association with oxLDL triggers the activation of NF-kappa-B, resulting in increased intracellular reactive oxygen species production and various pro-atherogenic cellular responses, including reduced nitric oxide release, monocyte adhesion, and apoptosis. Beyond its role in lipid metabolism, LOX-1/OLR1 acts as a receptor for HSP70, facilitating antigen cross-presentation to naive T-cells in dendritic cells and participating in cell-mediated antigen cross-presentation. Moreover, it is involved in inflammatory processes, acting as a leukocyte-adhesion molecule at the vascular interface during endotoxin-induced inflammation. Additionally, LOX-1/OLR1 serves as a receptor for advanced glycation end products, activated platelets, monocytes, apoptotic cells, and both Gram-negative and Gram-positive bacteria. It forms homodimers, potentially organizing into hexamers composed of three homodimers, and interacts with HSP70.
------------	--

---

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA