

## LOX-1/OLR1 Protein, Mouse (HEK293, His)

Cat. No.:	HY-P77986
Synonyms:	Ox-LDL receptor 1; LOX-1; CLEC8A; LOX1; OLR1; LOXIN; SR-E1; SCARE1; SLOX1
Species:	Mouse
Source:	HEK293
Accession:	Q9EQ09 (R60-I363)
Gene ID:	108078
Molecular Weight:	55-63 kDa

### PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 $\mu$ m filtered solution of PBS, pH 7.4. Normally 8% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/ $\mu$ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 $\mu$ g/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	<p>LOX-1/OLR1 serves as a crucial receptor in the recognition, internalization, and degradation of oxidatively modified low-density lipoprotein (oxLDL) by vascular endothelial cells. The binding of oxLDL to LOX-1 triggers vascular endothelial cell activation and dysfunction, leading to pro-inflammatory responses, increased oxidative conditions, and apoptosis. This interaction induces the activation of NF-kappa-B, contributing to intracellular reactive oxygen species production and fostering various pro-atherogenic cellular responses, including reduced nitric oxide release, monocyte adhesion, and apoptosis. Beyond its role in atherosclerosis, LOX-1 acts as a receptor for HSP70, participating in antigen cross-presentation to naive T-cells in dendritic cells. Furthermore, it plays a pivotal role in inflammatory processes by functioning as a leukocyte-adhesion molecule at the vascular interface during endotoxin-induced inflammation. Additionally, LOX-1 acts as a receptor for advanced glycation end products, activated platelets, monocytes, apoptotic cells, and both Gram-negative and Gram-positive bacteria. The receptor exists as a homodimer, potentially forming hexamers composed of three homodimers, and interacts with HSP70.</p>
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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