

OxiSelect Human Oxidized LDL (CML-LDL Quantitation) ELISA Kit

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CATALOG #
AAA44519

PRODUCT SYNONYMS

OxiSelect Human Oxidized LDL (CML-LDL Quantitation); OxiSelect Human Oxidized LDL ELISA Kit (CML-LDL Quantitation); OxiSelect Human Oxidized LDL (CML-LDL Quantitation) elisa kit

PRODUCT SPECIFICATIONS

Samples	Plasma, serum or other biological fluid samples
Preparation and Storage	Upon receipt, aliquot and store the Blocking Reagent at -20 degree C to avoid multiple freeze/thaw cycles. Store all other components at 4 degree C.

IMAGES

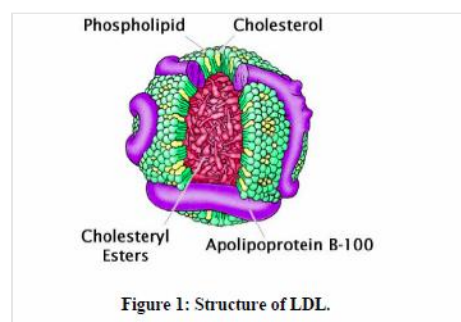
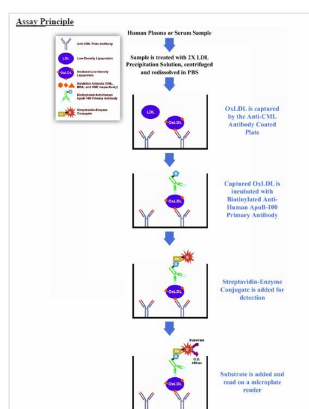


Figure 1: Structure of LDL.

Application Data

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ADDITIONAL INFORMATION

Related Product Information for OxiSelect Human Oxidized LDL (CML-LDL Quantitation) elisa kit

Background: Lipoproteins are submicroscopic particles composed of lipid and protein held together by noncovalent forces. Their general structure is that of a putative spheroidal microemulsion formed from an outer layer of phospholipids, unesterified cholesterol, and proteins, with a core of neutral lipids, predominately cholesteryl esters and triacylglycerols (TAG). Low density lipoprotein (LDL) is the major transport protein for cholesterol in human plasma. LDL is a spherical particle with a diameter of 20-25 nm. Each LDL particle contains cholesteryl esters in its core which are surrounded by a hydrophilic coat composed of phospholipids, cholesterol, and one molecule of a hydrophobic protein known as apolipoprotein B-100 (Figure 1). LDL cholesterol, sometimes referred to as "bad" cholesterol, is even more dangerous when it becomes oxidized. Oxidized LDL (OxLDL) is more reactive with surrounding tissues and can collect within the inner-lining of arteries. Macrophages, cholesterol, and other lipids can accumulate at the site (atherosclerosis), ultimately forming a plaque that can lead to heart attack, stroke or death. LDL oxidation affects both the lipid and protein components of LDL. Reactive aldehyde products formed during the oxidation of polyunsaturated fatty acids, such as malondialdehyde (MDA) and 4-hydroxynonenal (HNE), are capable of attaching covalently to the epsilon-amino groups of lysine residues of ApoB-100 to form MDA-Lys and HNE-Lys adducts (MDA-LDL and HNE-LDL). Advanced glycosylation, such as the formation of CML-LDL and CEL-LDL, are also involved in LDL oxidation. The OxiSelect Human Oxidized LDL ELISA Kit is an enzyme immunoassay developed for the detection and quantitation of human OxLDL in plasma, serum or other biological fluid samples. The kit contains a copper oxidized LDL standard and has a detection sensitivity limit of ~150 ng/mL. Each kit provides sufficient reagents to perform up to 96 assays including standard curve and unknown samples.

Product Categories/Family for OxiSelect Human Oxidized LDL (CML- LDL Quantitation) elisa kit	Metabolism Research; Lipoprotein Metabolism; Oxidized LDL ELISA Kits
References	1. Witztum J. L. and Steinberg D. (1991) J Clin Invest, 88: 1785-1792. 2. Ross R. (1993) Nature, 362: 801-809. 3. Steinbrecher U. P. (1999) Biochim Biophys Acta, 1436: 279-298. 4. Steinbrecher, U. P. (1987) J. Biol. Chem. 262: 3603-3608. 5. Schmidt, A. M., O. Hori, J. X. Chen, J. F. Li, J. Crandall, J. Zhang, R. Cao, S. D. Yan, J. Brett, and D. Stern. (1995) J. Clin. Invest. 96: 1395-1403.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/elisa-kits/oxiselect-human-oxidized-ldl-cml-ldl-quantitation/44519>