

Product Data Sheet

□ Cat # LDLO13-N-1 Human Plasma low density lipoprotein (o-LDL) Oxidized, purified Size: □ 1 mg

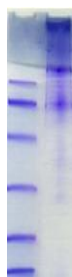
Low-density lipoprotein (LDL) is one of the five major groups of lipoproteins, which in order of size, largest to smallest, are chylomicrons, VLDL, IDL, LDL, and HDL, that enable transport of multiple different fat molecules, including cholesterol, within the water around cells and within the water-based bloodstream. Studies have shown that higher levels of type-B LDL particles (as opposed to type-A LDL particles) are associated with health problems, including cardiovascular disease. LDL is often informally called bad cholesterol, (as opposed to HDL particles, which are frequently referred to as good cholesterol or healthy cholesterol).

Each native LDL particle contains a single apolipoprotein B-100 molecule (Apo B-100, a protein that has 4536 amino acid residues and a mass of 514 kDa), which circulates the fatty acids, keeping them soluble in the aqueous environment. [citation needed] In addition, LDL has a highly hydrophobic core consisting of polyunsaturated fatty acid known as linoleate and about 1500 esterified cholesterol molecules. This core is surrounded by a shell of phospholipids and unesterified cholesterol, as well as the single copy of Apo B-100. LDL particles are approximately 22 nm (0.00000087 in.) in diameter and have a mass of about 3 million daltons, but since LDL particles contain a changing number of fatty acids, they actually have a distribution of mass and size.

Apolipoprotein B is the dominant protein constituent of LDL. The concentration of Apo B in normal plasma is 90 mg per 100 ml. Two forms of Apo B exist: Apo B-100 and Apo B-48. The first is found in VLDL and LDL and is produced by the liver. The second is found in chylomicrons and originates in the intestine.

Oxidized-LDL may play an important part in the atherogenic process in vivo. Ox-LDL generated by a variety of means, including copper mediated oxidation, and has been used in hundreds of published studies. The chemical composition of the Ox-LDL has been demonstrated to vary with the degree of oxidation. Oxidized lipids, such as oxidized phospholipids and oxysterols, and oxidized protein adducts increase with increasing time and degree of oxidation of LDL. Each of these classes of chemical components can have a multitude of different effects on each of the cell types in the artery wall.

Source of Antigen and Antibodies



Human LDL is prepared from fresh, non-frozen plasma shown to be non reactive for HBsAg, anti-HCV, anti-HBc, and negative for anti-HIV 1 & 2 by FDA approved tests. Oxidized LDL is made via copper sulfate oxidation. Each lot is analyzed for the degree of oxidation (via TBARS assay) and migration versus the native LDL on agarose gel electrophoresis. The product is membrane filtered, aseptically packaged and Endotoxin tested. Our Ox-LDL is evaluated ultimately for receptor binding to peritoneal macrophages in conjunction with our [1125]Ox-LDL or Dil-Ox-LDL. This product has oxidation of 25-35 TBARS. Suupplied as liquid in 150 mM NaCl, pH 7.4, and 0.01%

EDTA. Density: 1.02 to 1.063 g/ml; Composition: 78-80% lipid, 22-20% protein

Store at 2-6oC in a dark place. DO NOT FREEZE.

Stability: 6 months..

Shipping: 4oC for solutions and room temp for lyophilized items.

General References: Knott C (1986) Nucl. Acid Res. 14, 7501-7503; Law SW (1985) PNAS 82, 8340-8344; Hardman DA (1987) Biochem. 26, 5478-5486; Hospattankar AV (1987) BBRC 148, 279-285; Yang C-y (1986) Nature 323, 738-742; Knott TC (1986) Nature 323, 734-738;

*This product is for in vitro research use only.

Related items

- HDL31-N-1 Human Plasma high density lipoprotein (HDL) native, purified
- LDLA12-N-1 Human Plasma low density lipoprotein (Ac-LDL) Acetylated, purified
- LDLA16-N-1 Human Plasma low density lipoprotein (Dil-Ac-LDL) Acetylated & Dillabeled,
- LDL1314-N-1 Human Plasma low density lipoprotein (b-LDL) Biotinylated, purified
- LDLD15-N-1 Human Plasma low density lipoprotein (dil-LDL) Dil-labeled, purified
- LDLN11-A Anti-Human Plasma low density lipoprotein (LDL) native, antiserum
- LDLN11-N-1 Human Plasma low density lipoprotein (LDL) native, purified
- LDLN11-N-5 Human Plasma low density lipoprotein (LDL) native, purified
- LDL013-N-1 Human Plasma low density lipoprotein (o-LDL) Oxidized, purified
- LDL017-N-1 Human Plasma low density lipoprotein (Dil-O-LDL) Oxidized & Dil-labeled,
- LIPH16-N Lipoproteins, High Density, Human Plasma
- LIP17-N Lipoproteins, Intermediate Density, Human Plasma
- LIPL18-N Lipoproteins, Low Density, Human Plasma
- LIPV19-N Lipoproteins, Very Low Density, Human Plasma
- VLDLN21-N-1 Human Plasma very low density lipoprotein (VLDL) native,
- APOA11-S Anti-Human Plasma Apolipoprotein A-I protein antiserum
- APOA12-A Anti-Human Apolipoprotein A-I protein IgG, aff pure
- APOA13-A Anti-Mouse Apolipoprotein A-I protein IgG, aff pure
- APOA15-N-100 Apolipoprotein A-I, Human Plasma, HDL
- APOA21-A Anti-Human Apolipoprotein A-II protein IgG, aff pure
- APOA25-N-100 Apolipoprotein A-II, Human Plasma, HDL
- APOA45-N-100 Apolipoprotein A-IV, Human Plasma, HDL
- APOB21-A Ant-Human Apolipoprotein B IgG, aff pure
- APOB25-N-100 Apolipoprotein B, Human Plasma, LDL
- APOC11-A Anti-Human Apolipoprotein C-I IgG, aff pure
- APOC15-N-100 Human Apolipoprotein C-I protein control for WB
- APOC15-N-100 Apolipoprotein C-I, Human Plasma, VLDL
- APOC21-S Anti-Human Plasma Apolipoprotein C-1I antiserum
- APOC22-A Anti-Human Apolipoprotein C-1I IgG, aff pure
- APOC25-N-50 Apolipoprotein C-II, Human Plasma, VLDL
- APOC32-A Anti-Human Apolipoprotein C-III IgG, aff pure
- APOC35-N-50 Apolipoprotein C-III, Human Plasma, VLDL
- APOE11-S Anti-Human ApoE protein antiserum #1
- APOE12-M Monoclonal Anti-Human ApoE protein IgG #2
- APOE13-A Anti-Human Plasma Apolipoprotein E (ApoE) IgG, aff pure
- APOE15-R Human Purified native plasma Apolipoprotein E protein
- APOE25-R Recombinant Purified Human Apolipoprotein E2 protein
- APOE31-S Anti-Human ApoE3
- APOE35-R Recombinant Purified Human Apolipoprotein E3 protein
- APOE36-R Recombinant (E coli) Purified

LDLO13-N-1

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