

**AR05037PU-N****Human Low Density Lipoprotein / LDL - Purified**

<b>Alternate names:</b>	Low-density lipoprotein
<b>Quantity:</b>	0.2 mg
<b>Concentration:</b>	0.2 mg/ml
<b>Background:</b>	LDL (low-density lipoprotein) is a type of lipoprotein that transports cholesterol and triglycerides from the liver to peripheral tissues. LDL enables fats and cholesterol to move within the water based solution of the blood stream. LDL also regulates cholesterol synthesis at these sites.
<b>Species:</b>	Human
<b>Source:</b>	Human
<b>Format:</b>	<b>State:</b> Liquid purified serum <b>Purity:</b> Purified LDL is acetylated and then labelled with the fluorescent probe Dil (1,1'-dioctadecyl-3,3,3',3'-tetramethylindo-carbocyanine perchlorate). The resultant product is exhaustively dialyzed against 0.15 M NaCl, 0.05 M Tris, pH 7.4, 0.3 mM EDTA, sterilized by filtration and then aseptically packaged.
<b>Applications:</b>	<u>Functional Assays.</u> <u>Immunofluorescence:</u> 3% formaldehyde in PBS is required for fixation. Methanol or Acetone can not be used as this protein is soluble in organic solvents. <u>Flow Cytometry.</u> Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
<b>Description:</b>	Many lots have been evaluated for the specific labelling of bovine aortic endothelium, HUVECS, murine macrophages and the current lot was evaluated on P-388D cells.
<b>Storage:</b>	Store the protein undiluted at 2-8°C. DO NOT FREEZE! Shelf life: 3 month from despatch.
<b>General Readings:</b>	1. Fogelman AM, Shechter I, Seager J, Hokom M, Child JS, Edwards PA. Malondialdehyde alteration of low density lipoproteins leads to cholesteryl ester accumulation in human monocyte-macrophages. Proc Natl Acad Sci U S A. 1980 Apr;77(4):2214-8. PubMed PMID: 6769124. 2. Pitas RE, Innerarity TL, Weinstein JN, Mahley RW. Acetoacetylated lipoproteins used to distinguish fibroblasts from macrophages in vitro by fluorescence microscopy. Arteriosclerosis. 1981 May-Jun;1(3):177-85. PubMed PMID: 6895305. 3. Voyta JC, Via DP, Butterfield CE, Zetter BR. Identification and isolation of endothelial cells based on their increased uptake of acetylated-low density lipoprotein. J Cell Biol. 1984 Dec;99(6):2034-40. PubMed PMID: 6501412. 4. Allen S, Khan S, Al-Mohanna F, Batten P, Yacoub M. Native low density lipoprotein-induced calcium transients trigger VCAM-1 and E-selectin expression in cultured human vascular endothelial cells. J Clin Invest. 1998 Mar 1;101(5):1064-75. PubMed PMID: 9486977. 5. Gough PJ, Gordon S, Greaves DR. The use of human CD68 transcriptional regulatory

sequences to direct high-level expression of class A scavenger receptor in macrophages in vitro and in vivo. *Immunology*. 2001 Jul;103(3):351-61. PubMed PMID: 11454064.

6. Stein O, Stein Y. Bovine aortic endothelial cells display macrophage-like properties towards acetylated 125I-labelled low density lipoprotein. *Biochim Biophys Acta*. 1980 Dec 5;620(3):631-5. PubMed PMID: 7236661.