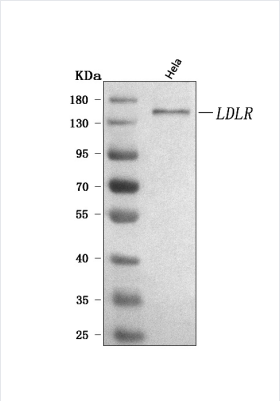
LDLR Antibody – Rabbit Polyclonal

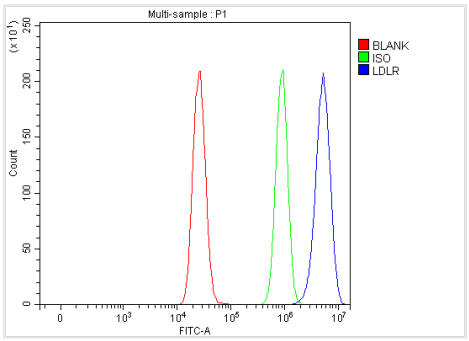
PRODUCT OVERVIEW

Product Name	LDLR, Polyclonal Antibody
Full Product Name	Anti-LDLR Antibody Picoband
Product Gene Name	anti-LDLR antibody
Product Synonym Names	low density lipoprotein receptor; Low-density lipoprotein receptor; LDL receptor; LDLR
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Purity/Purification	Immunogen affinity purified.
Specificity	Widely expressed, including in adult and fetal brain, placenta, skin fibroblasts, adipose tissue and gonads.
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing.
Molecular Weight	95,376 Da
Chromosome Location	Chromosome: 19; NC_000019.9 (11200038..11244506). Location: 19p13.2
OMIM	143890
3D Structure	ModBase 3D Structure for P01130
Immunogen	E coli-derived human LDLR recombinant protein (Position: A705-A860).
Subcellular Localization	Lysosome. Golgi apparatus. Cell membrane. Single-pass type I membrane protein. Early endosome. Late endosome. Clathrin-coated pit.
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross-reactivity with other proteins.
Protein Function	Binds LDL, the major cholesterol-carrying lipoprotein of plasma, and transports it into cells by endocytosis. In order to be internalized, the receptor-ligand complexes must first cluster into clathrin-coated pits. (Microbial infection) Acts as a receptor for hepatitis C virus in hepatocytes, but not through a interaction with viral proteins. (Microbial infection) Acts as a receptor for Vesicular stomatitis virus. (Microbial infection) In case of HIV-1 infection, may function as a receptor for extracellular Tat in neurons, mediating its internalization in uninfected cells.
Product Categories/Family for anti-LDLR antibody	Primary Antibodies; Cancer; Cardiovascular; Cytochromes; Drug Metabolism; Growth Factors/Hormones; Lipases; Lipid and Lipoprotein Metabolism; Lipid Metabolism; Lipids/Lipoproteins; Metabolic Signaling Pathways; Metabolism ; Mitochondrial Metabolism; Pathwa
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-LDLR antibody	Western Blot (WB), Flow Cytometry (FC/FACS), ELISA (EIA)
Application Notes for anti-LDLR antibody	WB: 0.25-0.5ug/ml, Human FC/FACS (Fixed): 1-3ug/1x1x10^6 cells, Human ELISA: 0.1-0.5ug/ml

Related Product Information for anti-LDLR antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Product References and Citations for anti-LDLR antibody	1. Aalto-Setala, K., Helve, E., Kovanen, P. T., Kontula, K. Finnish type of low absorbance lipoprotein receptor gene mutation (FH-Helsinki) deletes exons encoding the carboxy-terminal part of the receptor and creates an internalization-defective phenotype. J. Clin. Invest. 84: 499-505, 1989.2. Aalto-Setala, K., Koivisto, U.-M., Miettinen, T. A., Gylling, H., Kesaniemi, Y. A., Savolainen, M., Pyorala, K., Ebeling, T., Mononen, I., Turtola, H., Viikari, J., Kontula, K. Prevalence and geographical distribution of major LDL receptor gene rearrangements in Finland. J. Intern. Med. 231: 227-234, 1992.3. Agnello, V., Abel, G., Elfahal, M., Knight, G. B., Zhang, Q.-X. Hepatitis C virus and other flaviviridae viruses enter cells via low absorbance lipoprotein receptor. Proc. Nat. Acad. Sci. 96: 12766-12771, 1999.
Other Notes	Small volumes of anti-LDLR antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for LDLR purchase	MBS1758026 is an antibody targeting LDLR. Also known as Anti-LDLR Antibody Picoband. Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-LDLR antibody
Figure 1. Western blot analysis of LDLR using anti-LDLR antibody (MBS1758026).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.Lane 1: human Hela whole cell lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-LDLR antigen affinity purified polyclonal antibody (#MBS1758026) at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (#MBS176460) with Tanon 5200 system. A specific band was detected for LDLR at approximately 140-160 kDa. The expected band size for LDLR is at 95,140-160,120 kDa.



Flow Cytometry (FC/FACS) of anti-LDLR antibody
Figure 2. Flow Cytometry analysis of MCF-7 cells using anti-LDLR antibody (MBS1758026).Overlay histogram showing MCF-7 cells stained with MBS1758026 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-LDLR Antibody (MBS1758026, 1ug/1x106 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG (MBS177405, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for LDLR. It may not necessarily be applicable to this product.

NCBI GI #	4504975
NCBI GeneID	3949
NCBI Accession #	NP_000518.1
UniProt Primary Accession #	P01130
UniProt Secondary Accession #	Q53ZD9; Q59FQ1; Q9UDH7; B4DII3; B4DJZ8; B4DR00; B4DTQ3; C0JYY8; H0YLU8; H0YNT7
UniProt Related Accession #	P01130
GenBank Nucleotide #	NM_000527.4

NCBI Official Full Name	low-density lipoprotein receptor isoform 1
NCBI Official Synonym Full Names	low density lipoprotein receptor
NCBI Official Symbol	LDLR
NCBI Official Synonym Symbols	FH; FHC; LDLCQ2
UniProt Protein Name	Low-density lipoprotein receptor
Protein Family	Low-density lipoprotein receptor
UniProt Gene Name	LDLR
UniProt Synonym Gene Names	LDL receptor
UniProt Entry Name	LDLR_HUMAN
NCBI Protein Information	low-density lipoprotein receptor; LDL receptor; low-density lipoprotein receptor class A domain-containing protein 3
NCBI Summary for LDLR	The low density lipoprotein receptor (LDLR) gene family consists of cell surface proteins involved in receptor-mediated endocytosis of specific ligands. Low density lipoprotein (LDL) is normally bound at the cell membrane and taken into the cell ending up in lysosomes where the protein is degraded and the cholesterol is made available for repression of microsomal enzyme 3-hydroxy-3-methylglutaryl coenzyme A (HMG CoA) reductase, the rate-limiting step in cholesterol synthesis. At the same time, a reciprocal stimulation of cholesterol ester synthesis takes place. Mutations in this gene cause the autosomal dominant disorder, familial hypercholesterolemia. Alternate splicing results in multiple transcript variants.[provided by RefSeq, Sep 2010]
UniProt Comments for LDLR	LDLR: Binds LDL, the major cholesterol-carrying lipoprotein of plasma, and transports it into cells by endocytosis. In order to be internalized, the receptor-ligand complexes must first cluster into clathrin-coated pits. In case of HIV-1 infection, functions as a receptor for extracellular Tat in neurons, mediating its internalization in uninfected cells. Defects in LDLR are the cause of familial hypercholesterolemia (FH); a common autosomal semi- dominant disease that affects about 1 in 500 individuals. The receptor defect impairs the catabolism of LDL, and the resultant elevation in plasma LDL-cholesterol promotes deposition of cholesterol in the skin (xanthelasma), tendons (xanthomas), and coronary arteries (atherosclerosis). Belongs to the LDLR family. 4 isoforms of the human protein are produced by alternative splicing. Protein type: Cell surface; Membrane protein, integral; Receptor, misc. Chromosomal Location of Human Ortholog: 19p13.2 Cellular Component: Golgi apparatus; cell surface; membrane; integral to plasma membrane; lysosome; late endosome; early endosome; plasma membrane; endosome membrane; coated pit; receptor complex; external side of plasma membrane Molecular Function: low-density lipoprotein receptor activity; very-low-density lipoprotein receptor activity; protein binding; low-density lipoprotein binding; clathrin heavy chain binding; calcium ion binding; glycoprotein binding Biological Process: lipoprotein catabolic process; cholesterol metabolic process; phototransduction, visible light; receptor-mediated endocytosis; cholesterol transport; viral reproduction; cholesterol absorption; endocytosis; lipoprotein metabolic process; cholesterol homeostasis; phospholipid transport; lipid metabolic process; retinoid metabolic process Disease: Hypercholesterolemia, Familial
Research Articles on LDLR	**1.** The LDL receptor (LDLR) serves as the major entry port of vesicular stomatitis virus and of VSV-G oat protein pseudotyped lentiviral vectors in human and mouse cells.
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