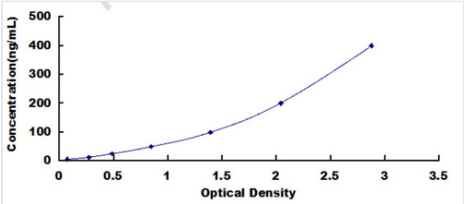
Low Density Lipo (LDL) ELISA Kit for Rat

PRODUCT OVERVIEW

Product Name	Low Density Lipoprotein (LDL), ELISA Kit
Full Product Name	Rat Low Density Lipoprotein (LDL) ELISA Kit
Product Gene Name	LDL elisa kit
Species Reactivity	Rat
Assay Type	Double-antibody Sandwich
Samples	Serum, Plasma and other biological fluids
Detection Range	6.25-400ng/mL
Sensitivity	2.99ng/mL
Specificity	This assay has high sensitivity and excellent specificity for detection of Low Density Lipoprotein (LDL). No significant cross-reactivity or interference between Low Density Lipoprotein (LDL) and analogues was observed.
Preparation and Storage	The stability of kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition. To minimize extra influence on the performance, operation procedures and lab conditions, especially room temperature, air humidity, incubator temperature should be strictly controlled. It is also strongly suggested that the whole assay is performed by the same operator from the beginning to the end.
Molecular Weight	8,219 Da
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.
Application	Enzyme-linked immunosorbent assay for Antigen Detection.
Intra-assay Precision (Precision within an assay)	3 samples with low, middle and high level Low Density Lipoprotein (LDL) were tested 20 times on one plate, respectively.
Inter-assay Precision (Precision between assays)	3 samples with low, middle and high level Low Density Lipoprotein (LDL) were tested on 3 different plates, 8 replicates in each plate.
CV(%) =	SD/meanX100
Intra-Assay	CV<10%
Inter-Assay	CV<12%
Product Categories/Family for LDL elisa kit	Metabolic pathway; Cardiovascular biology; Hepatology; Gastroenterology; Nutrition metabolism
ISO Certification	Manufactured in an ISO 9001:2015 and ISO 13485:2016 Certified Laboratory.
Related Product Information for LDL elisa kit	The test principle applied in this kit is Sandwich enzyme immunoassay. The microtiter plate provided in this kit has been pre-coated with an antibody specific to Low Density Lipoprotein (LDL). Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody specific to Low Density Lipoprotein (LDL). Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After TMB substrate solution is added, only those wells that contain Low Density Lipoprotein (LDL), biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm ± 10nm. The concentration of Low Density Lipoprotein (LDL) in the samples is then determined by comparing the O.D. of the samples to the standard curve.

Other Notes	Small volumes of LDL elisa kit 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 LDL purchase	MBS2024903 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Low Density Lipoprotein (LDL) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing LDL. The ELISA analytical biochemical technique of the MBS2024903 kit is based on LDL antibody-LDL antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect LDL antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, LDL. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).



Typical Testing Data/Standard Curve (for reference only) of LDL elisa kit

ADDITIONAL DETAILS

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

NCBI GI #	306411097
NCBI GeneID	3949
NCBI Accession #	ADM85894.1
UniProt Related Accession #	P01130
NCBI Official Full Name	low density lipoprotein, partial
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
UniProt Synonym Protein Names	Low density lipoprotein
UniProt Gene Name	LDLR
UniProt Entry Name	E1B4T0_HUMAN
NCBI Protein Information	low-density lipoprotein receptor
NCBI Summary for LDL	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 LDL	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: Receptor, misc.; Membrane protein, integral; Cell surface Chromosomal Location of Human Ortholog: 19p13.2 Cellular Component: Golgi apparatus; cell surface; membrane; lysosome; integral to plasma membrane; early endosome; late endosome; plasma membrane; endosome membrane; coated pit; receptor complex; external side of plasma membrane Molecular Function: very-low-density lipoprotein receptor activity; low-density lipoprotein receptor activity; protein binding; low-density lipoprotein binding; calcium ion binding; clathrin heavy chain binding; glycoprotein binding Biological Process: lipoprotein catabolic process; receptor-mediated endocytosis; phototransduction, visible light; cholesterol metabolic process; 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 LDL	**1.** homozygote genotypes of rs1122608 (P<0.0001), rs4300767 (P<0.005) and rs10417578 (p<0.007) SNPs have strong protective effects on the CAD.
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