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Human CellExp LDLR, human recombinant protein

LDLR, FH, FHC, LDLCQ2, Low-Density Lipoprotein (LDL) Receptor
Catalog # PBV11093r

Specification

Human CellExp LDLR, human recombinant protein - Product info

Primary Accession	P01130
Calculated MW	**This protein is fused with a C-terminal 6×his tag and has a calculated MW of 86 kDa. The predicted N-terminal is Ala22 or Asp193. Corresponding to the mature and immature form, DTT-reduced protein migrates as 95-110 kDa &125-140 kDa polypeptide in SDS-PAGE resulting from different glycosylation. KDa**

Human CellExp LDLR, human recombinant protein - Additional Info

Gene ID	**3949**
Gene Symbol	**LDLR**

Other Names
LDLR, FH, FHC, LDLCQ2, Low-Density Lipoprotein (LDL) Receptor

Gene Source	**Human**
Source	**HEK293 cells**
Assay&Purity	**SDS-PAGE; ≥90%**
Assay2&Purity2	**N/A;**
Recombinant	**Yes**
Results	**Measured in a competitive binding assay. When human LDL is immobilized at 1 µg/ml (100 µl/well), recombinant human LDLR inhibits 50% binding of biotinylated recombinant human LDLR (0.5 µg/ml) at the concentration range of 0.35 – 2.5 µg/ml.**

Target/Specificity
LDLR

Application Notes
Centrifuge the vial prior to opening. Reconstitute in sterile PBS, pH 7.4 to a concentration of 50 µg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 month. For extended storage, it is recommended to store at -20°C.

Format
Lyophilized

Storage
-20°C; Lyophilized from 0.22 µm filtered solution in PBS, pH 7.4. Normally Mannitol or Trehalose is added as protectants before lyophilization.

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Human CellExp LDLR, human recombinant protein - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Human CellExp LDLR, human recombinant protein - Images

Human CellExp LDLR, human recombinant protein - Background

Low-Density Lipoprotein (LDL) Receptor, also known as LDLR, FH, FHC, LDLCQ2, and is a mosaic protein of ~840 amino acids (after removal of signal peptide) that mediates the endocytosis of cholesterol-rich LDL. It is a cell-surface receptor that recognizes the apoprotein B100 which is embedded in the phospholipid outer layer of LDL particles. The receptor also recognizes the apoE protein found in chylomicron remnants and VLDL remnants (IDL). It belongs to the Low density lipoprotein receptor gene family. LDL receptor complexes are present in clathrin-coated pits (or buds) on the cell surface, which when bound to LDL-cholesterol via adaptin, are pinched off to form clathrin-coated vesicles inside the cell. This allows LDL-cholesterol to be bound and internalized in a process known as endocytosis and prevents the LDL just diffusing around the membrane surface. This occurs in all nucleated cells (not erythrocytes), but mainly in the liver which removes ~70% of LDL from the circulation. Synthesis of receptors in the cell is regulated by the level of free intracellular cholesterol; if it is in excess for the needs of the cell then the transcription of the receptor gene will be inhibited. LDL receptors are translated by ribosomes on the endoplasmic reticulum and are modified by the Golgi apparatus before travelling in vesicles to the cell surface. LDL is directly involved in the development of atherosclerosis, due to accumulation of LDL-cholesterol in the blood. Atherosclerosis is the process responsible for the majority of cardiovascular diseases.

Human CellExp LDLR, human recombinant protein - References

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