

Human LDLR / LDL Receptor Protein (His Tag), Biotinylated

Catalog Number: 10231-H08H-B



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

FH; FHC; LDL R; LDL Receptor; LDLQC2

Protein Construction:

A DNA sequence encoding the extracellular domain of human LDLR (NP_000518.1) precursor (Met1-Arg788) was expressed with a C-terminal polyhistidine tag. The purified protein was biotinylated in vitro.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio-activity:

Measure by its ability to bind with human PCSK9 in a functional ELISA. 1. Immobilized human PCSK9 at 10 µg/ml (100 µl/well) can bind biotinylated recombinant human LDLR. The EC₅₀ of biotinylated human LDLR is 0.61 µg/ml. 2. Immobilized mouse PCSK9 at 10 µg/ml (100 µl/well) can bind biotinylated recombinant human LDLR. The EC₅₀ of biotinylated human LDLR is 0.12 µg/ml.

Endotoxin:

< 1.0 EU per µg protein as determined by the LAL method.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Ala 22

Molecular Mass:

The recombinant human LDLR consists of 777 amino acids and predicts a molecular mass of 86 kDa.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

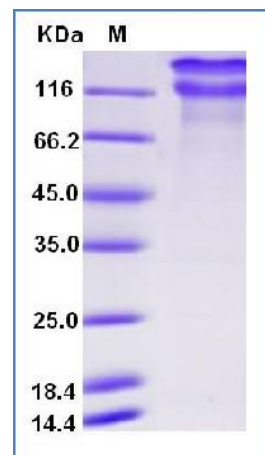
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

LDL Receptor, also known as LDLR, is a mosaic protein which belongs to the Low density lipoprotein receptor gene family. The low density lipoprotein receptor (LDLR) gene family consists of cell surface proteins involved in receptor-mediated endocytosis of specific ligands. LDL Receptor consists of 84 amino acids (after removal of signal peptide) and mediates the endocytosis of cholesterol-rich LDL. 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. LDL Receptor is a cell-surface receptor that recognizes the apoprotein B1 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.

References

1. Yamamoto T, *et al.* (1984) The human LDL receptor: a cysteine-rich protein with multiple Alu sequences in its mRNA. *Cell*. 39(1): 27-38. 2. Mao B, *et al.* (2001) LDL-receptor-related protein 6 is a receptor for Dickkopf proteins. *Nature*. 411(6835): 321-5. 3. Pinson KI, *et al.* (2000) An LDL-receptor-related protein mediates Wnt signalling in mice. *Nature*. 407(6803): 535-8.

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