

Mouse LDLR / LDL Receptor Protein (His Tag)

Catalog Number: 50305-M08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

Hlb301

Protein Construction:

A DNA sequence encoding the extracellular domain of mouse LDLR (NP_034830.2) precursor (Met 1-Arg 790) with substitution of Val 23 and Gly 27 by Ala 23 and Cys 27 respectively was expressed with a C-terminal polyhistidine tag.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio Activity:

Measured by its binding ability in a functional ELISA. Immobilized Rat PCSK9 at 10 µg/ml (100 µl/well) can bind biotinylated recombinant mouse LDLR. The EC₅₀ of biotinylated mouse LDLR is 0.173 µg/ml.

Endotoxin:

< 1.0 EU per µg of the 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 secreted recombinant mouse LDLR comprises 780 amino acids with a predicted molecular mass of 85.7 kDa. As a result of glycosylation, it migrates as approximately 120-130 kDa protein in SDS-PAGE under reducing conditions.

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:

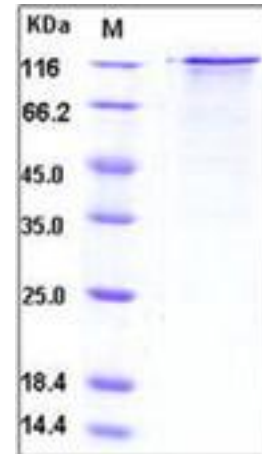
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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 840 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 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.

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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