

Human LDL Receptor Protein (Fc Tag)

Catalog Number: 10231-H05H



General Information

Gene Name Synonym:

FH; FHC; LDL R; LDL Receptor; LDLQC2

Protein Construction:

A DNA sequence encoding the human LDLR (NP_000518.1) (Met1-Arg788) was expressed with the Fc region of mouse IgG1 at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE.

Bio Activity:

1. Loaded Recombinant Human LDLR/LDL Receptor Protein, mFc Tag (Cat. No. 10231-H05H) on ProA Biosensor, can bind Recombinant Human PCSK9 (D374Y) Protein, His Tag (Cat. No. 29698-H08H1) with an affinity constant of 2.57nM as determined in BLI assay (Sartorius Octet RED384) (Routinely tested).
2. Loaded Recombinant Human LDLR/LDL Receptor Protein, mFc Tag (Cat. No. 10231-H05H) on ProA Biosensor, can bind Human PCSK9 / NARC1 (D374Y, V474I, G670E) Protein, His Tag (Cat. No. 10594-H08H1) with an affinity constant of 3.08nM as determined in BLI assay (Sartorius Octet RED384) (Routinely tested).
3. Loaded Recombinant Human LDLR/LDL Receptor Protein, mFc Tag (Cat. No. 10231-H05H) on ProA Biosensor, can bind Recombinant Human PCSK9 Protein, His Tag (Cat. No. 29698-H08H) with an affinity constant of 16nM as determined in BLI assay (Sartorius Octet RED384) (QC tested).

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 1001 amino acids and predicts a molecular mass of 111.2 kDa.

Formulation:

Lyophilized from sterile 50 mM Tris, 100 mM Glycine, 10 mM NaCl, pH 8.0.

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:

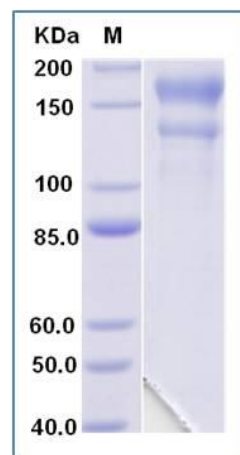
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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.

Manufactured By Sino Biological Inc., FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

For US Customer: Fax: 267-657-0217 • Tel: 215-583-7898

Global Customer: Fax :+86-10-5862-8288 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>