Human CellExp™ LDL R, Fc Tag, Human recombinant

CATALOG NO: P1128-10 10 µg
P1128-50 50 µg

ALTERNATE NAMES: LDLR, FH, FHC, LDLCQ2

SOURCE: HEK 293 cells (Ala 22 – Arg 788)

PURITY: > 95% by SDS – PAGE

MOL. WEIGHT: This protein carries a human IgG1 Fc tag at the C-terminus. The protein has a calculated MW of 111.4 kDa. As a result of glycosylation, protein migrates as 155-175 kDa under reducing (R) condition and 310-350 kDa under non-reducing (NR) condition on SDS-PAGE gel.

ENDOTOXIN LEVEL: < 1.0 EU per 1µg of protein (determined by LAL method)

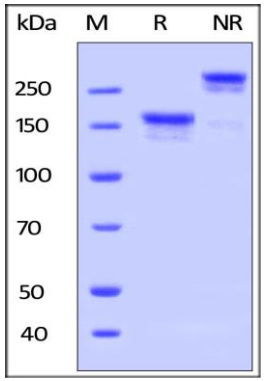
FORM: Lyophilized

FORMULATION: Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Generally Mannitol or Trehalose is added as a protectant before lyophilization.

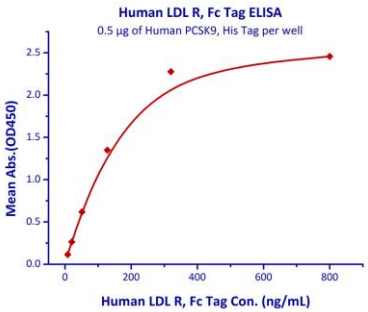
STORAGE CONDITIONS: Store at -20°C. After reconstitution, aliquot and store at -20°C and use within 3 months. Avoid repeated freezing and thawing cycles.

RECONSTITUTION: Centrifuge the vial prior to opening. Reconstitute in sterile deionized water to a concentration of 50 µg/ml. Solubilize for 30 to 60 minutes at room temperature with occasional gentle mixing. Carrier protein (0.1% (W/V) HSA or BSA) is recommended for further dilution and long term storage. 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 -80°C.

DESCRIPTION: Low-Density Lipoprotein (LDL) Receptor is 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 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.



The purity of Human CD83, His Tag was determined by DTT-reduced (+) SDS-PAGE and staining overnight with Coomassie Blue.



Immobilized Human PCSK9, His Tag at 5µg/mL (100 µL/well) can bind Human LDL R, Fc Tag with a linear range of 8-320 ng/mL.

RELATED PRODUCT:

- Human CellExp™ LDLR, human recombinant **(Cat. No. 7472-10, -50)**
- Human CellExp™ VLDLR, human recombinant **(Cat. No. 7464-1000)**
- Lipoprotein, Human Plasma, Low Density **(Cat. No. 4931-10, -50)**
- Lipoproteins, Human Plasma, Very Low Density **(Cat. No. 4933-1000)**
- Lipoproteins, Low Density, Human Plasma, Suitable for Cell Culture **(Cat. No. 7854-1000)**
- Lipoproteins, Very Low Density, Human Plasma, Suitable for Cell Culture **(Cat. No. 7855-1000)**
- LDLR Antibody **(Cat. No. 3839-100)**
- LDLR Blocking Peptide **(Cat. No. 3839BP-50)**

FOR RESEARCH USE ONLY! Not to be used on humans.