Datasheet for ABIN2181455

LDLR Protein (AA 22-788) (His tag)

3 Images

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Overview

Quantity:	100 µg
Target:	LDLR
Protein Characteristics:	AA 22-788
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This LDLR protein is labelled with His tag.

Product Details

Sequence:	AA 22-788
Characteristics:	This protein carries a polyhistidine tag at the C-terminus. The protein has a calculated MW of 86 kDa. The protein migrates as 95-110 kDa &125-140 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.
Purity:	>90 % as determined by SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

Target Details

Target:	LDLR

Target Details

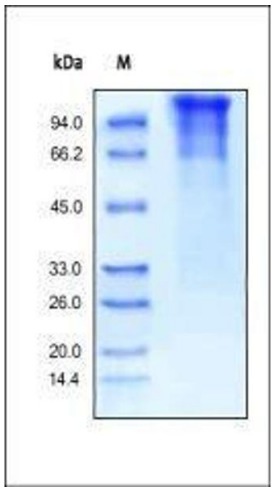
Alternative Name:	LDL R (LDLR Products)
Background:	Low-Density Lipoprotein (LDL) Receptor is also known as LDLR, FH, FHC, LDLCQ2, and is a mosaic protein of ~840 amino acids (after removal of signal peptide) that mediates the endocytosis of cholesterol-rich LDL. It is a cell-surface receptor that recognizes 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 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.
Molecular Weight:	85.9 kDa
NCBI Accession:	NP_000518
Pathways:	Hepatitis C, Lipid Metabolism

Application Details

Restrictions:	For Research Use only

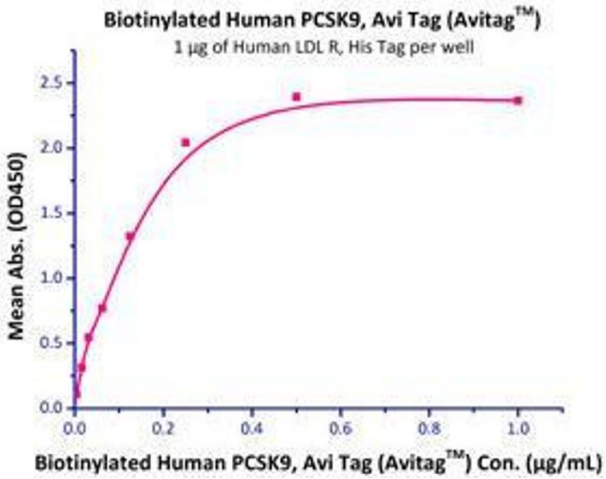
Handling

Format:	Lyophilized
Buffer:	PBS, pH 7.4
Handling Advice:	Please avoid repeated freeze-thaw cycles.
Storage:	-20 °C
Storage Comment:	No activity loss was observed after storage at: In lyophilized state for 1 year (4 °C-8 °C), After reconstitution under sterile conditions for 1 month (4 °C-8 °C) or 3 months (-20 °C to -70 °C).



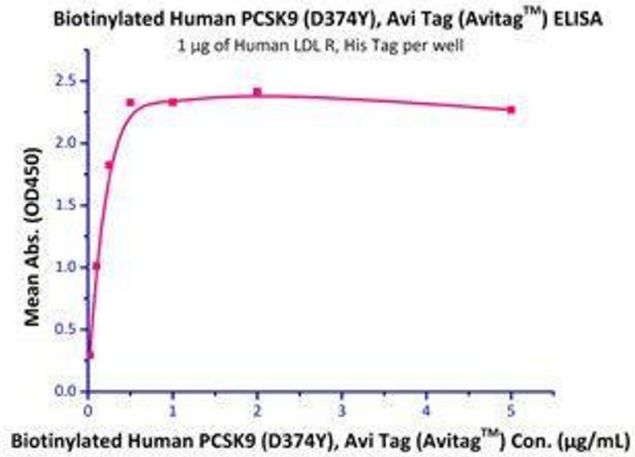
SDS-PAGE

Image 1. Human LDL R, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.



Binding Studies

Image 2. Immobilized Human LDL R, His Tag (Cat# LDR-H5224) at 10 μg/mL (100 μl/well) can bind Biotinylated Human PCSK9 (Cat# PC9-H82E7) with a linear range of 0.01-0.1 μg/mL.



Binding Studies

Image 3. Immobilized Human LDL R, His Tag (Cat# LDR-H5224) at 10 μg/mL (100 μl/well) can bind Biotinylated Human (D374Y) PCSK9 (Cat# PCY-H82E7) with a linear range of 0.02-0.5 μg/mL.