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Datasheet for ABIN5954921

LDLR Protein (AA 22-788) (His tag,AVI tag,Biotin)

2 Images

Overview

Quantity:	200 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,AVI tag,Biotin.

Product Details

Sequence:	AA 22-788
Specificity:	Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.
Purity:	>80 % as determined by SDS-PAGE.
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

Target Details

Target:	LDLR
Alternative Name:	LDL R (LDLR Products)
Background:	Low-Density Lipoprotein (LDL) Receptor is also known as LDLR, FH, FHC, LDLCQ2, and is a

Target Details

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: 88.5 kDa

NCBI Accession: [NP_000518](#)

Pathways: [Hepatitis C](#), [Lipid Metabolism](#)

Application Details

Comment: Ready-to-use Avitag™ biotinylated protein:
The product is exclusively produced using the Avitag™ technology. Briefly, a unique 15 amino acid peptide, the Avi tag, is introduced into the recombinant protein during expression vector construction. The single lysine residue in the Avi tag is enzymatically biotinylated by the E. Coli biotin ligase BirA.

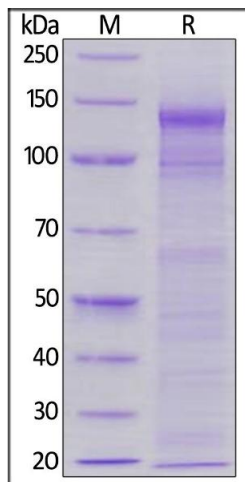
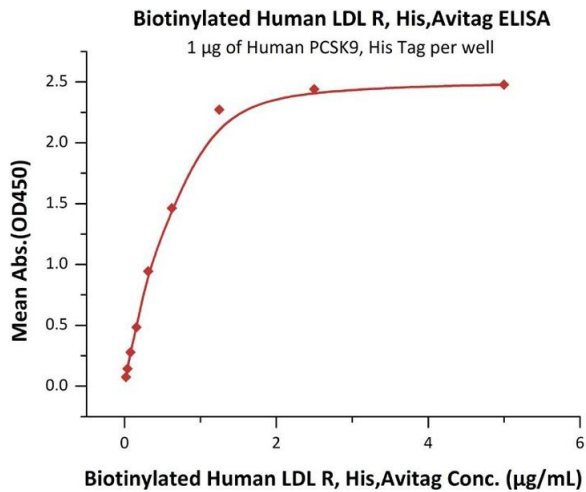
This single-point enzymatic labeling technique brings many advantages for commonly used binding assays. The biotinylation happens on the lysine residue of Avi tag, and therefore does NOT interfere with the target protein's natural binding activities. In addition, when immobilized on an avidin-coated surface, the protein orientation is uniform because the position of the Avi tag in the protein is precisely controlled.

Restrictions: For Research Use only

Handling

Format:	Lyophilized
Buffer:	PBS, pH 7.4
Handling Advice:	Please avoid repeated freeze-thaw cycles.
Storage:	-20 °C

Images



ELISA

Image 1. Immobilized Human PCSK9, His Tag (ABIN2181580,ABIN2181579) at 10 µg/mL (100 µL/well) can bind Biotinylated Human LDL R, His,Avitag (ABIN5954921,ABIN6253570) with a linear range of 0.02-0.625 µg/mL (QC tested).

SDS-PAGE

Image 2. Biotinylated Human LDL R, His,Avitag on under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 80 %.