Recombinant Cynomolgus LDLR protein, His-tagged

Cat. No. LDLR-366C **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Cynomolgus LDLR protein (Ala22-Gly788), fused to His tag at C-terminus, was expressed in human 293 cells (HEK293).
Species	Cynomolgus
Source	HEK293
ProteinLength	767
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 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

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	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.
Form	Lyophilized from 0.22 um filtered solution in PBS, pH7.4, 10% trehalose.
Molecular Mass	The protein has a calculated MW of 86.8 kDa. The protein migrates as 135-155 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.
Endotoxin	Less than 1.0 EU per ug by the LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles. This product is stable after storage at: -20 centigrade to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4℃ before opening to recover the entire contents.

GENE INFORMATION

Gene Name	LDLR
Official Symbol	LDLR
Synonyms	FH; FHC; LDLCQ2

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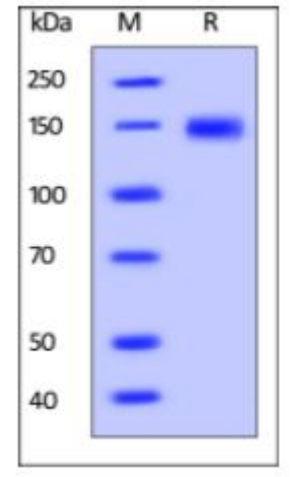
Gene ID	102127361
mRNA Refseq	XM_005587996.2
Protein Refseq	XP_005588053.1
UniProt ID	A0A2K5VYW3
SDS-PAGE of LDLR-366C	 Cynomolgus LDL R, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

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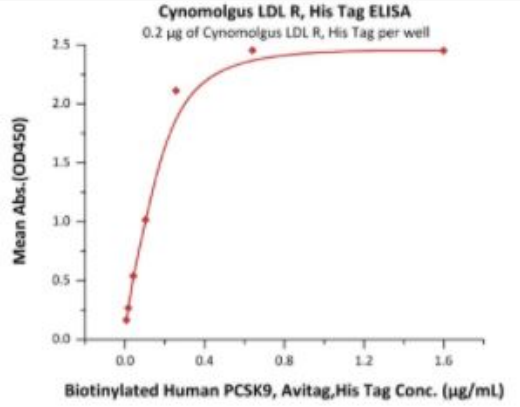
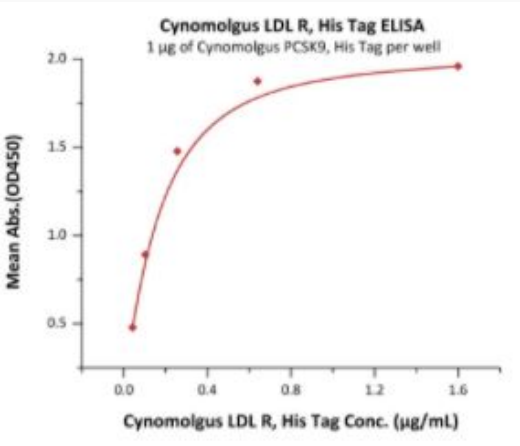
Bioactivity-ELISA of LDLR-366C	 Immobilized Cynomolgus LDL R, His Tag at 2 μg/mL (100 μL/well) can bind Biotinylated Human PCSK9, Avitag,His Tag with a linear range of 0.007-0.256 μg/mL (QC tested).
Bioactivity-ELISA of LDLR-366C	 Immobilized Cynomolgus PCSK9, His Tag at 10 μg/mL (100 μL/well) can bind Cynomolgus LDLR, His Tag with a linear range of 0.04-0.256 μg/mL (Routinely tested).

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