

Product datasheet for **KN200006LP**

LDL Receptor (LDLR) Human Gene Knockout Kit (CRISPR)

Product data:

Product Type: Knockout Kits (CRISPR)
Format: 2 gRNA vectors, 1 Luciferase-Puro donor, 1 scramble control
Donor DNA: Luciferase-Puro
Symbol: LDL Receptor
Locus ID: 3949
Components: **KN200006G1**, LDL Receptor gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)
KN200006G2, LDL Receptor gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)
KN200006LPD, donor DNA containing left and right homologous arms and Luciferase-Puro functional cassette.

Homologous arm and Luciferase-Puro sequences:

pUC vector backbone in gray; **Left arm sequence in blue**; **Luciferase-Puro in green**; **Right arm in violet**

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GTATGGCTTC ATTCAGCTCC GGTCCCAAC GATC

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GE100003, scramble sequence in pCas-Guide vector

Disclaimer:

These products are manufactured and supplied by OriGene under license from ERS. The kit is designed based on the best knowledge of CRISPR technology. The system has been functionally validated for knocking-in the cassette downstream the native promoter. The efficiency of the knock-out varies due to the nature of the biology and the complexity of the experimental process.

RefSeq:

[NM_000527](#), [NM_001195798](#), [NM_001195799](#), [NM_001195800](#), [NM_001195802](#),
[NM_001195803](#)

UniProt ID:

[P01130](#)

Synonyms:

FH; FHC; LDLCQ2

Summary:

The low density lipoprotein receptor (LDLR) gene family consists of cell surface proteins involved in receptor-mediated endocytosis of specific ligands. 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. Mutations in this gene cause the autosomal dominant disorder, familial hypercholesterolemia. Alternate splicing results in multiple transcript variants.[provided by RefSeq, Sep 2010]

Product images:
