

## Product datasheet for KN213184LP

## OriGene Technologies, Inc.

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# **HMGCR 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: HMGCR Locus ID: 3156

**Components: KN213184G1**, HMGCR gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

**KN213184G2**, HMGCR gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN213184LPD, donor DNA containing left and right homologous arms and Luciferase-Puro

functional cassette.

**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:** <u>NM 000859</u>, <u>NM 001130996</u>, <u>NM 001364187</u>

UniProt ID: P04035
Synonyms: LDLCQ3

Summary: HMG-CoA reductase is the rate-limiting enzyme for cholesterol synthesis and is regulated via

a negative feedback mechanism mediated by sterols and non-sterol metabolites derived from mevalonate, the product of the reaction catalyzed by reductase. Normally in mammalian cells this enzyme is suppressed by cholesterol derived from the internalization and degradation of low density lipoprotein (LDL) via the LDL receptor. Competitive inhibitors of the reductase induce the expression of LDL receptors in the liver, which in turn increases the catabolism of plasma LDL and lowers the plasma concentration of cholesterol, an important determinant of atherosclerosis. Alternatively spliced transcript variants encoding different isoforms have

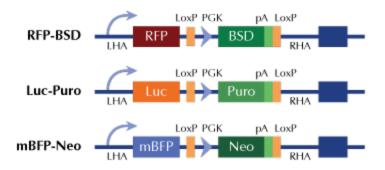
been found for this gene. [provided by RefSeq, Aug 2008]





# **Product images:**

## Donor Vector Edited Chromosome



RFP, Luc, and mBFP will be under native gene promoter