

### Product datasheet for KN218456LP

#### OriGene Technologies, Inc.

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## Leptin Receptor (LEPR) 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: Leptin Receptor

**Locus ID:** 3953

Components: KN218456G1, Leptin Receptor gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target

Sequence: TGTGTGGTTTTGTTACATTG

KN218456G2, Leptin Receptor gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target

Sequence: CAAAATCTCTACCATGTTTA

KN218456LPD, 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: NM 001003679, NM 001003680, NM 001198687, NM 001198688, NM 001198689,

NM 002303

UniProt ID: P48357

**Synonyms:** CD295; LEP-R; LEPRD; OB-R; OBR

**Summary:** The protein encoded by this gene belongs to the gp130 family of cytokine receptors that are

known to stimulate gene transcription via activation of cytosolic STAT proteins. This protein is a receptor for leptin (an adipocyte-specific hormone that regulates body weight), and is involved in the regulation of fat metabolism, as well as in a novel hematopoietic pathway that is required for normal lymphopoiesis. Mutations in this gene have been associated with obesity and pituitary dysfunction. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. It is noteworthy that this gene and LEPROT gene

(GenelD:54741) share the same promoter and the first 2 exons, however, encode distinct

proteins (PMID:9207021).[provided by RefSeq, Nov 2010]





# **Product images:**

#### Donor Vector Edited Chromosome



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