

## Product datasheet for KN209258LP

#### OriGene Technologies, Inc.

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## Niemann Pick C1 (NPC1) 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: Niemann Pick C1

**Locus ID:** 4864

**Components: KN209258G1**, Niemann Pick C1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

**KN209258G2**, Niemann Pick C1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002) **KN209258LPD**, 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 000271</u>

UniProt ID: 015118

Synonyms: NPC

Summary: This gene encodes a large protein that resides in the limiting membrane of endosomes and

lysosomes and mediates intracellular cholesterol trafficking via binding of cholesterol to its N-

terminal domain. It is predicted to have a cytoplasmic C-terminus, 13 transmembrane domains, and 3 large loops in the lumen of the endosome - the last loop being at the N-terminus. This protein transports low-density lipoproteins to late endosomal/lysosomal compartments where they are hydrolized and released as free cholesterol. Defects in this gene cause Niemann-Pick type C disease, a rare autosomal recessive neurodegenerative disorder characterized by over accumulation of cholesterol and glycosphingolipids in late

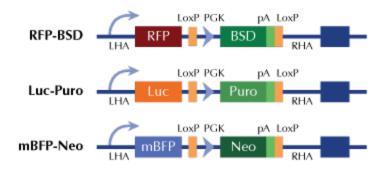
endosomal/lysosomal compartments.[provided by RefSeq, Aug 2009]





# **Product images:**

### Donor Vector Edited Chromosome



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