

# **Product datasheet for KN213071BN**

### OriGene Technologies, Inc.

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## PD-L1 (CD274) Human Gene Knockout Kit (CRISPR)

#### **Product data:**

**Product Type:** Knockout Kits (CRISPR)

**Format:** 2 gRNA vectors, 1 mBFP-Neo donor, 1 scramble control

**Donor DNA:** mBFP-Neo

Symbol: PD-L1 Locus ID: 29126

**Components: KN213071G1**, PD-L1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN213071G2, PD-L1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN213071BND, donor DNA containing left and right homologous arms and mBFP-Neo

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 001267706, NM 001314029, NM 014143, NR 052005</u>

UniProt ID: Q9NZQ7

Synonyms: B7-H; B7H1; PD-L1; PDCD1L1; PDCD1LG1; PDL1

**Summary:** This gene encodes an immune inhibitory receptor ligand that is expressed by hematopoietic

and non-hematopoietic cells, such as T cells and B cells and various types of tumor cells. The encoded protein is a type I transmembrane protein that has immunoglobulin V-like and C-like domains. Interaction of this ligand with its receptor inhibits T-cell activation and cytokine production. During infection or inflammation of normal tissue, this interaction is important for preventing autoimmunity by maintaining homeostasis of the immune response. In tumor microenvironments, this interaction provides an immune escape for tumor cells through cytotoxic T-cell inactivation. Expression of this gene in tumor cells is considered to be prognostic in many types of human malignancies, including colon cancer and renal cell carcinoma. Alternative splicing results in multiple transcript variants. [provided by RefSeq,

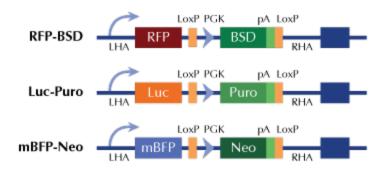
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# **Product images:**

### Donor Vector Edited Chromosome



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