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Product datasheet for KN213071

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

Product data:

Product Type: Knockout Kits (CRISPR)

Format: 2 gRNA vectors, 1 GFP-puro donor, 1 scramble control

Donor DNA: GFP-puro

Symbol: PD-L1

Locus ID: 29126

Components: **KN213071G1**, PD-L1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: ACCGTTCAGCAAATGCCAGT
KN213071G2, PD-L1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TCTTTATATTCATGACCTAC
KN213071D, donor DNA containing left and right homologous arms and GFP-puro functional cassette.
Homologous arm and GFP-puro sequences:
pUC vector backbone in gray; Left arm sequence in blue; GFP-puro in green; Right arm in violet

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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.

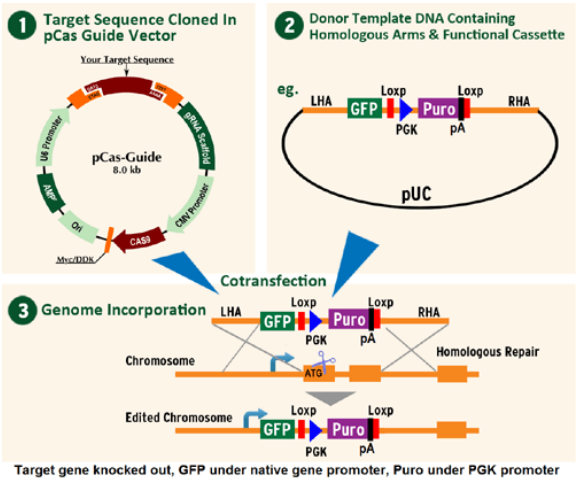
RefSeq: NM_001267706, NM_001314029, NM_014143, NR_052005

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, Sep 2015]

Product images:



Target gene knocked out, GFP under native gene promoter, Puro under PGK promoter