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PDL1 Knockout A549 Cell Line, Homozygous

Catalog No.: RM02151

Basic Information

Catalog No.
RM02151

Category
Cell Line

Parental Cell line
A549

Genotype
Knockout

Background

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]

Gene Information

Gene Symbol
PDL1

Species
Human

Gene ID
29126

Swiss Prot
Q9NZQ7

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

Product Information

Description
PDL1 Knockout A549 Cell Line is engineered from A549 cell line with Gene-Editing Technology.
Allele-1:exon1 was deleted
Allele-2:exon1 was deleted
Mammalian cells such as human, rat and mouse cells are normally diploid with two alleles. Homozygote: both alleles were knocked out, mRNA has no signal, no expression of proteins. Heterozygote: only one allele was knocked out, the mRNA transcript levels was decreased compared to wild type, and the protein expression levels was also lower than that of the wild type.

Packaging
1 vial parental cell line and 1 vial knockout cell line

Shipping Conditions
Dry ice

Amount
1~5x10^6 cells/vial

Storage
Stored in liquid nitrogen for a long time less than -130℃. Minimizing freeze-thaw cycles.

Protocol
Upon arrival, it should be maintained in DMEM medium with 10%(v/v) fetal bovine serum and 100U penicillin-streptomycin, at 37℃ with 5% CO_2 condition.
1. Thaw the vial in 37℃ water bath ,and shake it to melt as soon as possible.
2. Transfer the cell suspension to a 15mL conical tube with pre-warmed 5mL complete medium and centrifuge 1000rpm for approximately 5 minutes at room temperature.
3. Remove and discard the supernatant.
4. Resuspend the cell pellet with 1mL pre-warmed complete medium and seed in 10cm dish.
5. Add 8-10mL of complete medium.
6. Incubate the culture at 37℃ incubator with 5% CO_2.
7. A subcultivation ratio of 1:2-1:4 is recommended.

Contact

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Sequencing data

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WT    CGTGTTTTCCATAA**************ATTAGGTTCTATAT
Mut   CGTGTTTTCCATAA***Deletion***ATTAGGTTCTATAT
Allele-1: exon1 was deleted

WT    CGTGTTTTCCATAA**************ATTAGGTTCTATAT
Mut   CGTGTTTTCCATAA***Deletion***ATTAGGTTCTATAT
Allele-2: exon1 was deleted
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Genome sequence analysis of PCR products from parental (WT) and PDL1 knockout (KO) A549 cells, using sanger sequencing.