

Human Recombinant PD-L2 Stable Cell Line
Cat. No. M00627**Version 07042017****I. INTRODUCTION**

Catalog Number: M00627

Cell Line Name: CHO-K1/PD-L2

Gene Synonyms: B7DC; Btdc; CD273; PDCD1L2; bA574F11.2

Expressed Gene: Codon Optimized from NM_025239; no expressed tags

Host Cell: CHO-K1

Quantity: Two vials of frozen cells (1×10^6 per vial)

Stability: 15 passages

Application: Binding assay or use as immunogen

Freeze Medium: 95% complete growth medium, 5% DMSO

Complete Growth Medium: F12K, 10% FBS

Culture Medium: F12K, 10% FBS, 8 μ g/ml PuromycinMycoplasma Status[§]: Negative

Storage: Liquid nitrogen immediately upon receipt

II. BACKGROUND

Programmed cell death 1 ligand 2 (PD-L2) is a protein that in humans is encoded by the PDCD1LG2 gene. PDCD1LG2 has also been designated as CD273 (cluster of differentiation 273). Inhibitory molecules of the B7/CD28 family play a key role in the induction of immune tolerance in the tumor microenvironment. The programmed death-1 receptor (PD-1), with its ligands PD-L1 and PD-L2, constitutes an important member of these inhibitory pathways. PD-L2 expression was initially thought to be restricted to antigen-presenting cells such as macrophages and dendritic cells (DCs). PD-L2 expression can be induced on a wide variety of other immune cells and nonimmune cells depending on microenvironmental stimuli.

[§]: GenScript employs a PCR-based method to test the mycoplasma. The test covers 11 of the most common strains of mycoplasma, (covering approximately 95% of *M. fermentans*, *M. hyorhinis*, *M. arginini*, *M. orale*, *M. salivarium*, *M. hominis*, *M. pulmonis*, *M. arthritidis*, *M. neurolyticum*, *M. hyopneumoniae* and *M. capricolum*) and one species *Ureaplasma* (*U. urealyticum*), with sufficient sensitivity and specificity.

III. REPRESENTATIVE DATA

Protein Expression Validation

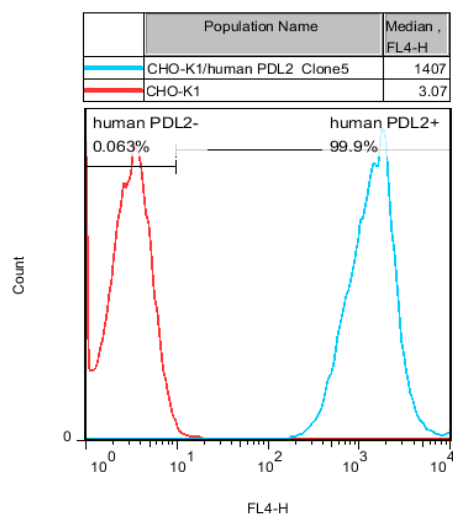


Figure 1. FACS analysis of human PDL2 expression in CHO-K1 cells.

IV. THAWING AND SUBCULTURING

Thawing Protocol

1. Remove the vial from liquid nitrogen tank and thaw cells quickly in a 37°C water-bath.
2. Just before the cells are completely thawed, decontaminate the outside of the vial with 70% ethanol and transfer the cells to a 15 ml centrifuge tube containing 9 ml of complete growth medium.
3. Pellet cells by centrifugation at 200 x g for 5 min, and remove the medium.
4. Resuspend the cells in complete growth medium.
5. Transfer the cell suspension to a 10 cm dish with 10 ml of complete growth medium.
6. Grow the cells in incubator with 37°C, 5 % CO₂.
7. Add antibiotic the following day.

Sub-culturing Protocol

1. Remove the culture medium from cells.
2. Wash cells with PBS (pH=7.4) to remove all traces of serum that contains trypsin inhibitor.
3. Add 2.0 ml of 0.25% (w/v) Trypsin- EDTA (GIBCO, Cat No. 25200-072) solution into 10 cm dish and observe the cells under an inverted microscope until cell layer is dispersed (usually within 3 to 5 minutes).
Note: To avoid cells clumping, do not agitate the cells by hitting or shaking the dish while waiting for the cells detach. If cells are difficult to detach, please place the dish in 37°C incubator for ~2 min.
4. Add 6.0 to 8.0 ml of complete growth medium into dish and aspirate cells by gently pipetting.
5. Centrifuge the cells at 200 x g for 5 min, and remove the medium.
6. Resuspend the cells in culture medium and add the cells suspension to new culture dish.
7. Grow the cells in incubator with 37°C, 5% CO₂.

Subcultivation Ratio: 1:4 to 1:8 weekly.

Medium Renewal: Every 2 to 3 days

V. REFERENCES

1. Y. Latchman, et al. PD-L2 is a second ligand for PD-1 and inhibits T cell activation [J]. Nature Immunology, 2001, 2(3): 261–268.
2. Esdy N. Rozali, et al., Programmed Death Ligand 2 in Cancer-Induced Immune Suppression [J]. Clinical and Developmental Immunology, 2012, 2012:656340.
3. W. J. Lesterhuis, H. Steer, and R. A. Lake, PD-L2 is predominantly expressed by Th2 cells [J]. Molecular Immunology, 2011, 49(1-2): 1–3.
4. N. Messal, et al. PD-L2 is expressed on activated human T cells and regulates their function [J]. Molecular Immunology, 2011, 48(15-16): 2214–2219.

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