

Data Sheet

PD-L1 - CHO Recombinant Cell line

Cat. #: 60543

Product Description

Recombinant CHO-K1 cells constitutively expressing human PD-L1 (Programmed Cell Death 1 Ligand 1, CD274, B7 homolog 1 (B7- H1), GenBank accession #NM_014143).

Background

The binding of Programmed Cell Death Protein 1 (PD-1), a receptor expressed on activated T-cells, to its ligands, PD-L1 and PD-L2, negatively regulates immune responses. The PD-1 ligands are found on most cancers, and PD-1:PD-L1/2 interaction inhibits T cell activity and allows cancer cells to escape immune surveillance. The PD-1:PD-L1/2 pathway is also involved in regulating autoimmune responses, making these proteins promising therapeutic targets for a number of cancers, as well as multiple sclerosis, arthritis, lupus, and type I diabetes.

Applications

- Screen PD-L1 antibodies for binding affinity and biological assays.

Format

Each vial contains $\sim 2.5 \times 10^6$ cells in 1 ml of 10% DMSO

Storage

Immediately upon receipt, store in liquid nitrogen.

Mycoplasma Testing

The cell line has been screened using the PCR-based Venor[®]GeM Mycoplasma Detection kit (Sigma-Aldrich) to confirm the absence of *Mycoplasma* species.

General Culture Conditions

Cells should be grown at 37°C with 5% CO₂ using Ham's F-12 medium (Hyclone #SH30526.01) supplemented with 10% FBS (Life Technologies #26140-079), 1% Penicillin/Streptomycin (Hyclone #SV30010.01), plus 1 mg/ml of Geneticin (Life Technologies #11811031) to ensure recombinant expression. PD-L1 – CHO cells should exhibit a typical cell division time of ~ 24 hours.

It is recommended to quickly thaw the frozen cells from liquid nitrogen in a 37°C water-bath, transfer to a tube containing 10 ml of growth medium **without Geneticin**, spin down cells, re-suspend cells in pre-warmed growth medium **without Geneticin**, transfer re-suspended cells to T25 flask and culture in 37°C CO₂ incubator overnight. The next day, replace the medium with

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fresh growth medium **without Geneticin**, and continue growing culture in a CO₂ incubator at 37°C until the cells are ready to be split. Cells should be split before they reach complete confluence. At first passage switch to growth medium **containing Geneticin**.

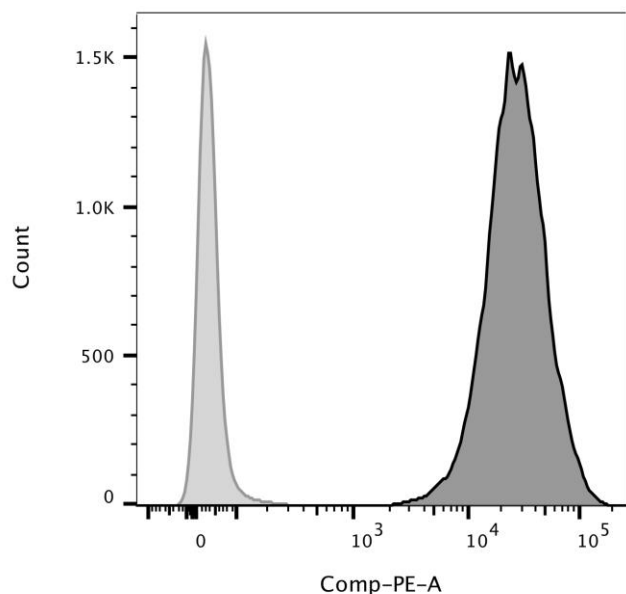
To passage the cells, rinse cells with phosphate buffered saline (PBS), detach cells from culture vessel with 0.05% Trypsin/EDTA, add complete growth medium and transfer to a tube, spin down cells, re-suspend cells and seed appropriate aliquots of cell suspension into new culture vessels. Sub cultivation ration: 1:10 to 1:20 twice a week.

Cell Validation

Expression of human PD-L1 in PD-L1-CHO cells was confirmed by Western blotting and FACS.

Figure 1. FACS analysis of cell surface expression of PD-L1 in PD-L1-CHO cells.

PD-L1-CHO or parental CHO-K1 cells were stained with PE-labeled anti-PD-L1 antibody (BPS Bioscience #71128) and analyzed by FACS. Y-axis shows the cell count. X-axis shows the intensity of PE fluorescence.



	Samples	Subset	Cell Count
Light Grey	Parental CHO cell + PE-anti-PD-L1 Ab	Live cells	20339
Dark Grey	PD-L1-CHO cell + PE-anti-PD-L1 Ab	Live cells	20014

Sequence

hPD-L1 sequence (Genbank accession #NM_014143)

MRIFAVFIFMTYWHLNNAFTVTVPKDLYVVEYGSNMTIECKFPVEKQLDLAALIVYWEMEDKNI
IQFVHGEEEDLKVQHSSYRQRARLLKDQLSLGNAALQITDVKLQDAGVYRCMISYGGADYKRITV
KVNAPYNKINQRILVVDVPTSEHELTCQAEGYPKAEVIWTSSDHQVLSGKTTTTNSKREEKLFN
VTSTLRINTTTNEIFYCTFRRLDPEENHTAELVIPELPLAHPNERTHLVILGAILLCLGVALT
FIFRLRKGRMMDVKKCGIQDTNSKKQSDTHLEET

Related Products

Product

	<u>Cat. #</u>	<u>Size</u>
PD-1/NFAT Reporter-Jurkat cell line	60535	2 vials
TCR Activator/PD-L1-CHO cell line	60536	2 vials
NFAT Reporter – Jurkat cell line	60621	2 vials
TCR activator-CHO cell line	60539	2 vials
Anti-PD-1 Neutralizing Antibody	71120	100 µg
Anti-PD-L1 Neutralizing Antibody	71213	100 µg
Anti-PD-L1 Neutralizing Antibody, PE-labeled	71128-1	50 µg
Anti-PD-L1 Neutralizing Antibody, Biotin-labeled	71214	100 µg
TCR activator / PD-L1 expression kit	60610	500 rxns.
TCR activator / PD-L2 expression kit	60620	500 rxns.
ONE-Step™ Luciferase Assay System	60690-1	10 ml
Human PD-1 (CD279), Fc fusion	71106	100 µg
Human PD-1, FLAG-Avi-His-tag	71198	50 µg
Human PD-L1 (CD274), Fc fusion	71104-1	50 µg
Human PD-L1 (CD274), FLAG-Avi-His tag	71183	50 µg
Human PD-L2 (CD273), Fc fusion	71107	100 µg
Human PD-1, Fc fusion, Biotin-labeled	71109	50 µg
Human PD-L1, Fc fusion, Biotin-labeled	71105	50 µg

Notes

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