# Human PD-L2 / B7-DC Protein, Mouse IgG1 Fc Tag

Catalog # PD2-H52A5

## Synonym

PDL2,PD-L2,Butyrophilin B7-DC,CD273,PDCD1 ligand 2,PDCD1L2,PDCD1LG2

## Source

Human PD-L2, Mouse IgG1 Fc Tag(PD2-H52A5) is expressed from human 293 cells (HEK293). It contains AA Leu 20 - Pro 219 (Accession # AAI13679).
Predicted N-terminus: Leu 20

## Molecular Characterization

| PD-L2(Leu 20 - Pro 219)<br>AAI13679 | mFc(Val 98 - Lys 324)<br>AAK53870.1 |
|---|---|

This protein carries a mouse IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 48.9 kDa. The protein migrates as 60-70 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 1.0 EU per μg by the LAL method / rFC method.

## Purity

>95% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22 μm filtered solution in
Tris with Glycine, Arginine and NaCl, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

## Reconstitution

Please see Certificate of Analysis for specific instructions.

***For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.***

## Storage

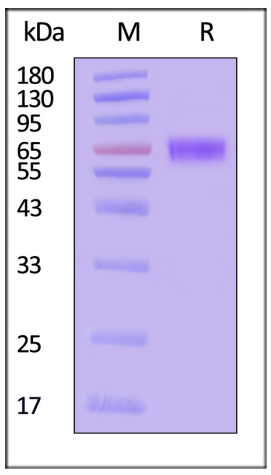
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

***Please avoid repeated freeze-thaw cycles.***

This product is stable after storage at:

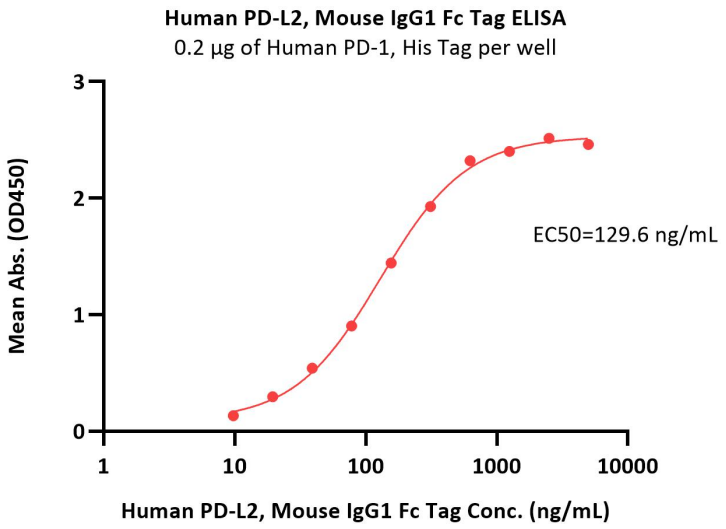
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE

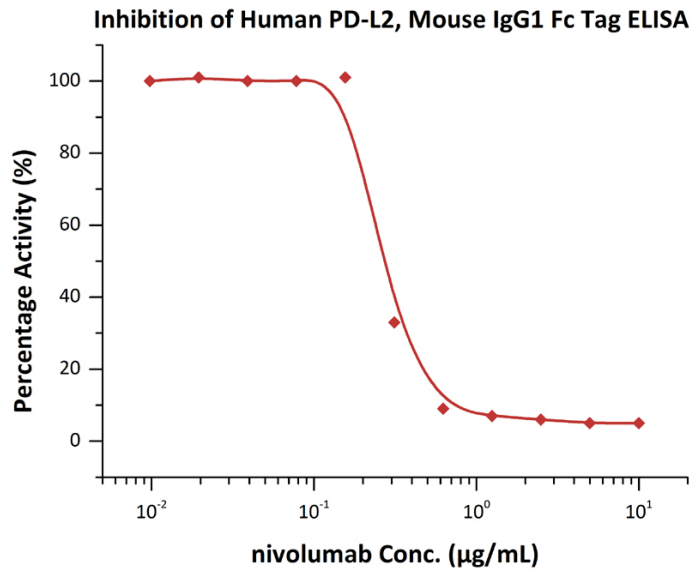



Human PD-L2, Mouse IgG1 Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

## Bioactivity-ELISA

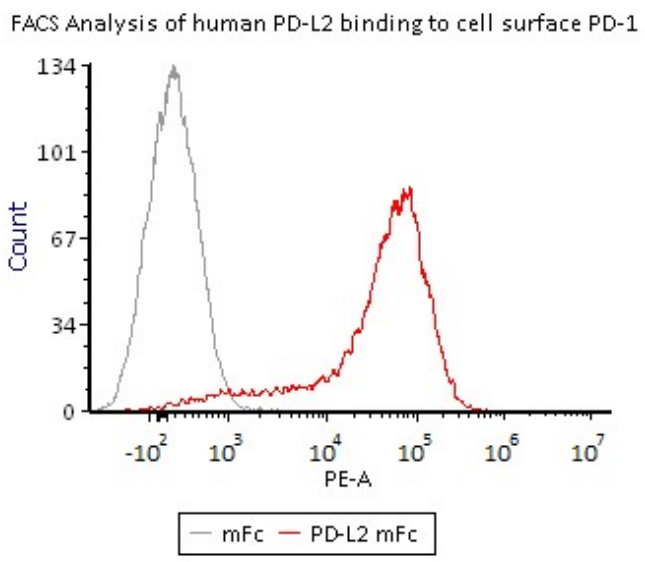



Immobilized Human PD-1, His Tag (Cat. No. PD1-H5221) at 2 μg/mL (100 μL/well) can bind Human PD-L2, Mouse IgG1 Fc Tag (Cat. No. PD2-H52A5) with a linear range of 10-156 ng/mL (QC tested).

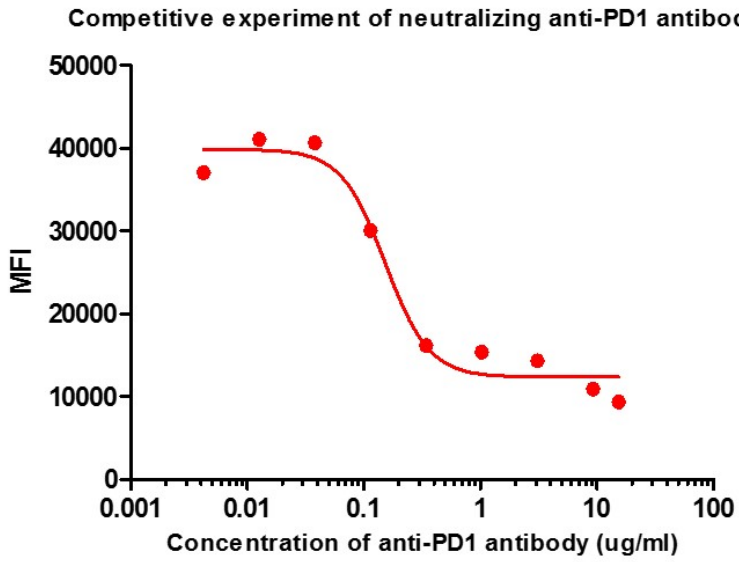



Serial dilutions of nivolumab were added into Human PD-L2, Mouse IgG1 Fc Tag (Cat. No. PD2-H52A5): Biotinylated Human PD-1, Fc,Avitag (Cat. No. PD1-H82F1) binding reactions. The half maximal inhibitory concentration (IC50) is 0.2823 μg/mL (Routinely tested).

## Bioactivity-FACS




Flow Cytometry assay shows that Human PD-L2, Mouse IgG1 Fc Tag (Cat. No. PD2-H52A5) can bind to 293 cell overexpressing human PD-1. The concentration of PD-L2 used is 0.1 μg/mL (Routinely tested).




FACS analysis shows that the binding of Human PD-L2, Mouse IgG1 Fc Tag (Cat. No. PD2-H52A5) to 293 overexpressing PD-1 was inhibited by increasing concentration of neutralizing Anti-PD-1 antibody. The concentration of PD-L2 used is 0.1 μg/mL. The IC50 is 1.3 μg/mL (Routinely tested).

## Background

Programmed cell death 1 ligand 2 (PD-L2 or PDCD1 ligand 2) is also known as Butyrophilin B7-DC, CD antigen CD273, which belongs to the immunoglobulin superfamily or BTN/MOG family. The expression of PD-L2 is up-regulated by IFNG/IFN-gamma stimulation in monocytes and induced on dendritic cells grown from peripheral blood mononuclear cells with CSF2 and IL-4. PD-L2 Involved in the costimulatory signal, essential for T-cell proliferation and IFNG production in a PDCD1-independent manner. PD-L2 interaction with PDCD1 inhibits T-cell proliferation by blocking cell cycle progression and cytokine production.