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 # <u>AAI13679</u>). Predicted N-terminus: Leu 20

# **Molecular Characterization**

```
PD-L2(Leu 20 - Pro 219) mFc(Val 98 - Lys 324)
AAI13679 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 under reducing (R) condition (SDS-PAGE) due to glycosylation.

### Endotoxin

Less than 1.0 EU per  $\mu$ g by the LAL 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**

kDa	м	R
116.0		
66.2	-	-
45.0	-	
35.0	-	
25.0	_	
18.4	-	
14.4	-	

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%.

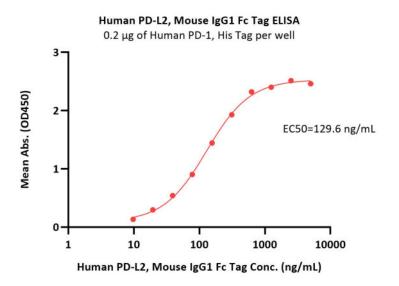
### **Bioactivity-ELISA**



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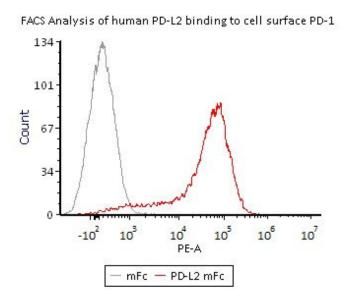


Immobilized Human PD-1, His Tag (Cat. No. PD1-H5221) at 2  $\mu$ g/mL (100  $\mu$ L/well) can bind Human PD-L2, Mouse IgG1 Fc Tag (Cat. No. PD2-H52A5) with a linear range of 10-156 ng/mL (QC tested).

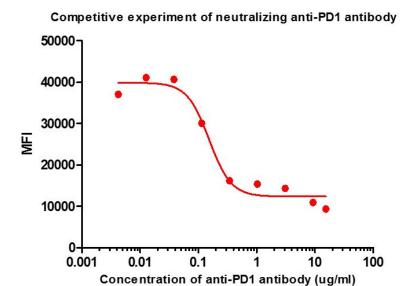
# Inhibition of Human PD-L2, Mouse IgG1 Fc Tag ELISA

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  $0.1 \mu g/mL$  (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.



**Clinical and Translational Updates** 



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