

Synonym

PD-L1,CD274,B7-H1,PDCD1L1,PDCD1LG1

Source

Human PD-L1, Fc Tag(PD1-H5258) is expressed from human 293 cells (HEK293). It contains AA Phe 19 - Arg 238 (Accession # <u>NP_054862.1</u>). Predicted N-terminus: Phe 19

Molecular Characterization

PD-L1(Phe 19 - Arg 238) Fc(Pro 100 - Lys 330) NP_054862.1 P01857

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

The protein has a calculated MW of 51.3 kDa. The protein migrates as 60-75 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.1 EU per μg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 μ m filtered solution in PBS, pH7.4 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

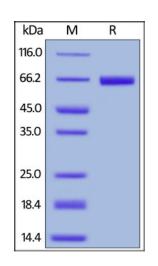
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

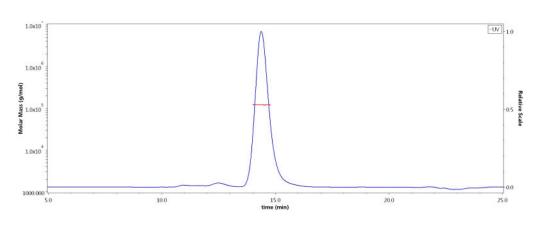
- -20°C to -70°C for 24 months in lyophilized state;
- -70°C for 12 months under sterile conditions after reconstitution.

SDS-PAGE



Human PD-L1, 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%.

SEC-MALS

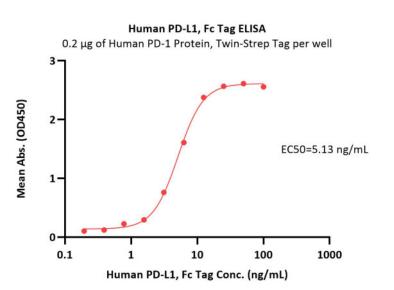


The purity of Human PD-L1, Fc Tag (Cat. No. PD1-H5258) is more than 90% and the molecular weight of this protein is around 115-150 kDa verified by SEC-MALS.

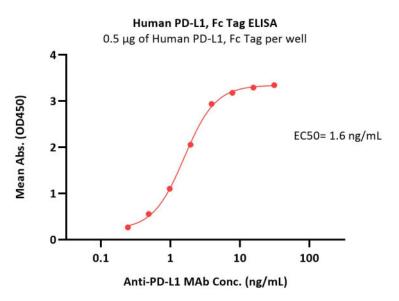


Bioactivity-ELISA



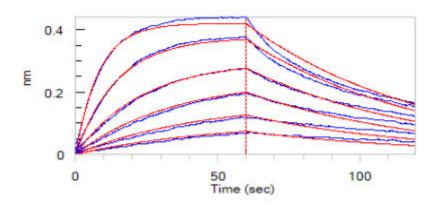


Immobilized Human PD-1 Protein, Twin-Strep Tag (Cat. No. PD1-H5286) at 2 μ g/mL (100 μ L/well) can bind Human PD-L1, Fc Tag (Cat. No. PD1-H5258) with a linear range of 0.2-13 ng/mL (QC tested).



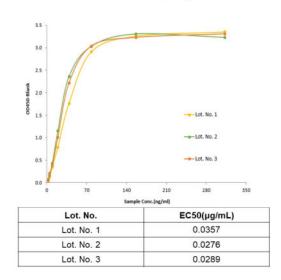
Immobilized Human PD-L1, Fc Tag (Cat. No. PD1-H5258) at 5 μ g/mL (100 μ L/well) can bind Anti-PD-L1 MAb with a linear range of 0.2-2 ng/mL (Routinely tested).

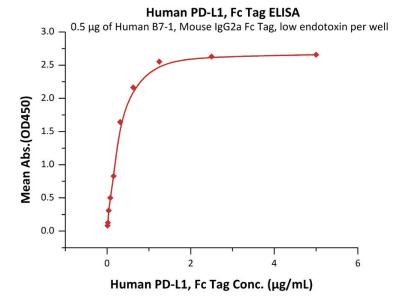
Bioactivity-BLI



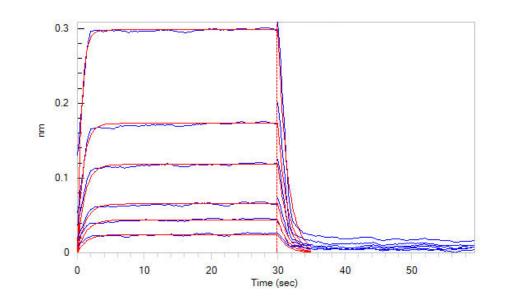
Acro Surprise Inside!

Batch consistency





Immobilized Human B7-1, Mouse IgG2a Fc Tag, low endotoxin (Cat. No. B71-H52A4) at 5 μ g/mL (100 μ L/well) can bind Human PD-L1, Fc Tag (Cat. No. PD1-H5258) with a linear range of 0.01-0.313 μ g/mL (Routinely tested).



Loaded Human PD-1, His Tag (Cat. No. PD1-H5221) on HIS1K Biosensor, can bind Human PD-L1, Fc Tag (Cat. No. PD1-H5258) with an affinity constant of 38.9 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

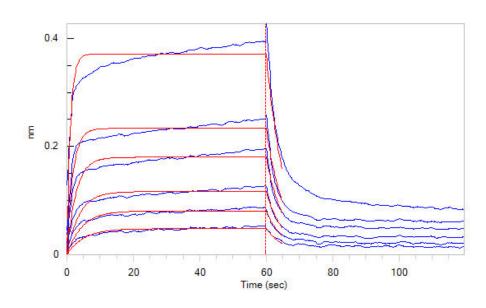
Loaded Human PD-L1, Fc Tag (Cat. No. PD1-H5258) on Protein A Biosensor, can bind Human B7-1, His Tag (Cat. No. B71-H5228) with an affinity constant of 18 μ M as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).





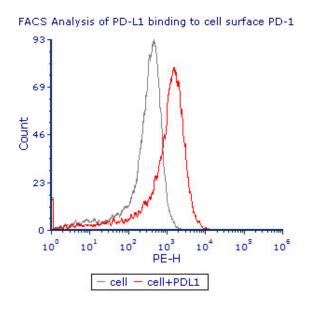






Loaded Human PD-L1, Fc Tag (Cat. No. PD1-H5258) on Protein A Biosensor, can bind Human Human PD-1, His Tag, low endotoxin (Cat. No. PD1-H522a) with an affinity constant of 4.8 μ M as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

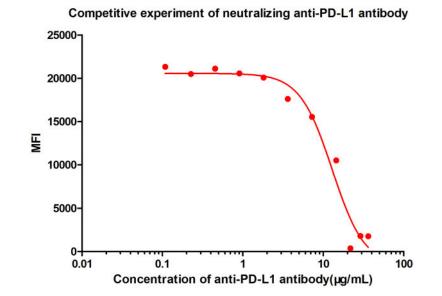
Bioactivity-FACS



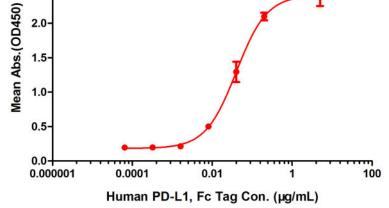
Flow Cytometry assay shows that Human PD-L1, Fc Tag (Cat. No. PD1-H5258) can bind to 293 cell overexpressing human PD-1. The concentration of PD-L1 used is $10 \ \mu g/mL$ (Routinely tested).

Bioactivity-Bioactivity CELL BASE

Cell based ELISA of Human PD-L1, Fc Tag binding to cell surface PD-1
3.0
2.52.0-



FACS analysis shows that the binding of Human PD-L1, Fc Tag (Cat. No. PD1-H5258) to 293 overexpressing PD-1 was inhibited by increasing concentration of neutralizing Anti-PD-L1 antibody. The concentration of PD-L1 used is 10 μg/mL. The IC50 is 12.92 μg/mL (Routinely tested).





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Immobilized cell surface PD-1 (5x104 of cells per well) can bind Human PD-L1, Fc Tag (Cat. No. PD1-H5258) with an EC50 of 0.029 μ g/mL (Routinely tested).

Background

Programmed cell death 1 ligand 1 (PDL1) is also known as B7-H, B7H1, MGC142294, MGC142296, PD-L1, PDCD1L1 and PDCD1LG1, which is a member of the growing B7 family of immune molecules and is involved in the regulation of cellular and humoral immune responses. PDL1 is a cell surface immunoglobulin superfamily with two Ig-like domains within the extracellular region and a short cytoplasmic domain. This protein is broadly expressed in the majority of peripheral tissues as well as hematopoietic cells. Interaction between PDL1 and its receptors belonging to the CD28 family of molecules provide both stimulatory and inhibitory signals in regulating T cell activation and tolerance. PDL1 may inhibit ongoing T-cell responses by inducing apoptosis and arresting cell-cycle progression.

Clinical and Translational Updates



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