

Recombinant Human CD274 protein, Fc-tagged (HPLC-verified)

Cat. No. CD274-358H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CD274 Protein (19-238aa), was expressed in human 293 cells (HEK293) with C-terminal human IgG1 Fc tag (HPLC-verified).
Species	Human
Source	HEK293
ProteinLength	19-238 aa
Description	Programmed cell death 1 ligand 1 (PD-L1) is also known as cluster of differentiation (CD274) or B7 homolog 1 (B7-H1), is a member of the growing B7 family of immune molecules and is involved in the regulation of cellular and humoral immune responses. B7-H1 is a cell surface immunoglobulin superfamily with two Ig-like domains within the extracellular region and a short cytoplasmic domain. PD-L1 is highly expressed in the heart, skeletal muscle, placenta and lung and weakly expressed in the thymus, spleen, kidney and liver. PD-L1 is expressed on activated T-cells, B-cells, dendritic cells, keratinocytes and monocytes. PD-L1 is up-regulated on T- and B-cells, dendritic cells, keratinocytes and monocytes after LPS and IFNG activation and up-regulated in B-cells activated by surface Ig cross-linking. PD-L1 involve in the costimulatory signal, essential for T-cell proliferation and production of IL10 and IFNG, in an IL2-dependent and a PDCD1-independent manner.
Form	Lyophilized from 0.22 um filtered solution in PBS, pH7.4, 10% trehalose.
Molecular Mass	The protein has a calculated MW of 51.4 kDa. The protein migrates as 60-75 kDa

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	under reducing (R) condition (SDS-PAGE) due to glycosylation.
Endotoxin	Less than 0.1 EU per ug by the LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles. This product is stable after storage at: -20 centigrade to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

GENE INFORMATION

Gene Name	CD274
Official Symbol	CD274
Synonyms	CD274; CD274 molecule; CD274 antigen , PDCD1LG1, programmed cell death 1 ligand 1; programmed cell death 1 ligand 1; B7 homolog 1; B7 H; B7 H1; B7H1; PD L1; PDL1; CD274 antigen; PDCD1 ligand 1; programmed death ligand 1; B7-H; PD-L1; PDCD1L1; PDCD1LG1; MGC142294; MGC142296
Gene ID	29126
mRNA Refseq	NM_014143

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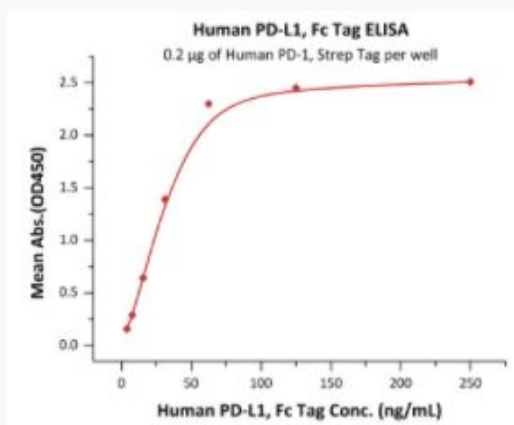
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Protein Refseq NP_054862

MIM 605402

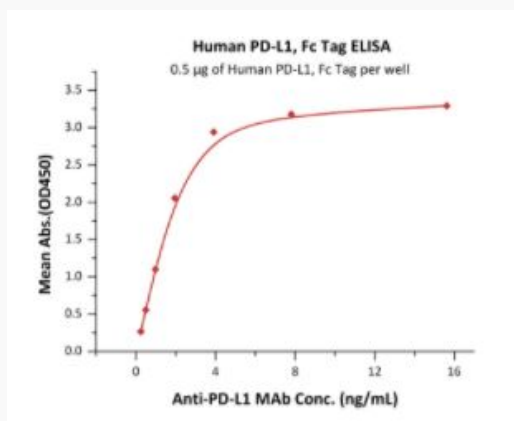
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**Bioactivity-ELISA of
CD274-358H**



Immobilized Human PD-1, Strep Tag at 2 µg/mL (100 µL/well) can bind Human PD-L1, Fc Tag (HPLC-verified) with a linear range of 4-63 ng/mL (QC tested).

**Bioactivity-ELISA of
CD274-358H**



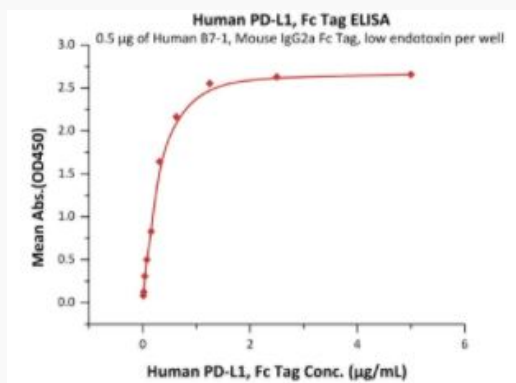
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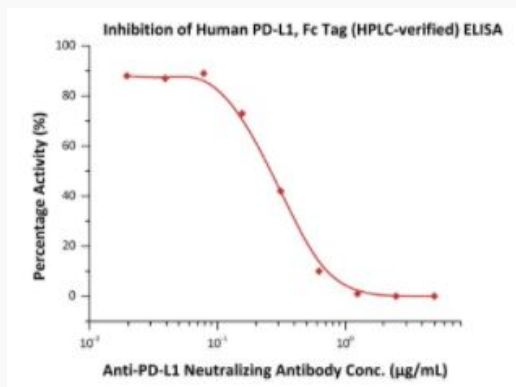
Immobilized Human PD-L1, Fc Tag (HPLC-verified) at 5 µg/mL (100 µL/well) can bind Anti-PD-L1 MAb with a linear range of 0.2-2 ng/mL (Routinely tested).

Bioactivity-ELISA of CD274-358H



Immobilized Human B7-1, Mouse IgG2a Fc Tag, low endotoxin at 5 µg/mL (100 µL/well) can bind Human PD-L1, Fc Tag (HPLC-verified) with a linear range of 0.01-0.313 µg/mL (Routinely tested).

Bioactivity-ELISA of CD274-358H



Serial dilutions of Anti-PD-L1 Neutralizing Antibody were added into Human PD-L1, Fc Tag (HPLC-verified): Biotinylated Human PD-1, Fc,Avitag,His Tag binding

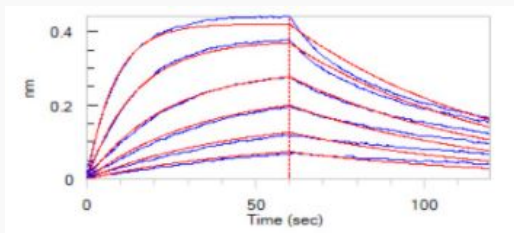
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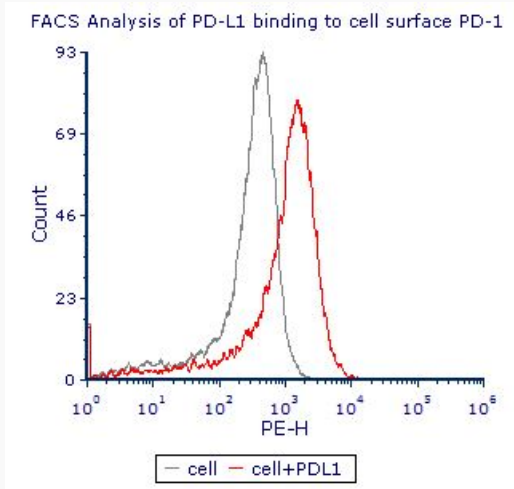
reactions. The half maximal inhibitory concentration (IC₅₀) is 0.2966 µg/mL (Routinely tested).

Bioactivity-BLI of CD274-358H



Loaded Human PD-1, His Tag (HPLC verified) on HIS1K Biosensor, can bind Human PD-L1, Fc Tag (HPLC-verified) with an affinity constant of 38.9 nM as determined in BLI assay (Routinely tested).

Bioactivity-FACS of CD274-358H



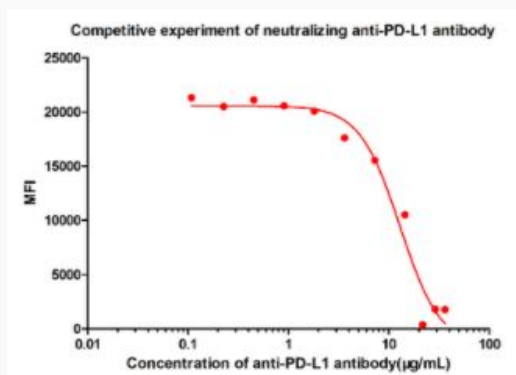
Flow Cytometry assay shows that Human PD-L1, Fc Tag (HPLC-verified) can bind to 293 cell overexpressing human PD-1. The concentration of PD-L1 used is 10 µg/mL (Routinely tested).

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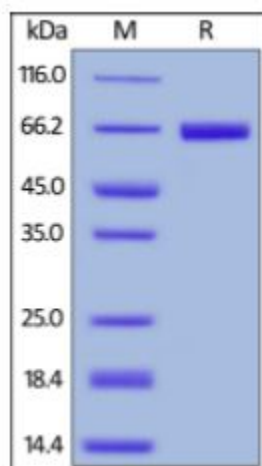
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Bioactivity-FACS of CD274-358H



FACS analysis shows that the binding of Human PD-L1, Fc Tag (HPLC-verified) 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).

SDS-PAGE of CD274- 358H



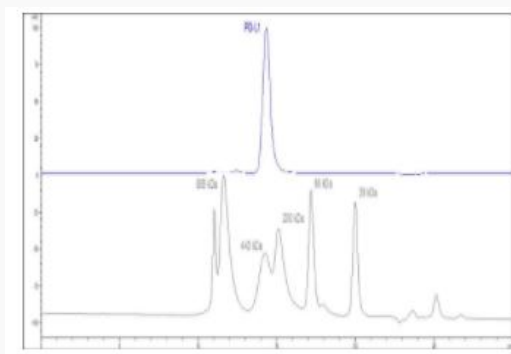
Human PD-L1, Fc Tag (HPLC-verified) on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

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SEC-HPLC of CD274-358H



The purity of Human PD-L1, Fc Tag (HPLC-verified) was greater than 90% as determined by SEC-HPLC.

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