

## Recombinant Human CD274 protein, His-tagged (HPLC verified)

**Cat. No.** CD274-2145H    **Lot. No.** (See product label)

### SPECIFICATION

**Product Overview**

Recombinant Human CD274 Protein (19-238aa), was expressed in human 293 cells (HEK293) with C-terminal His 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.

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<b>Molecular Mass</b>	The protein has a calculated MW of 26.0 kDa. The protein migrates as 35-42 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.
<b>Endotoxin</b>	Less than 1.0 EU per ug by the LAL method.
<b>Purity</b>	>98% as determined by SDS-PAGE.
<b>Storage</b>	<p>For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower.</p> <p>Please avoid repeated freeze-thaw cycles.</p> <p>This product is stable after storage at:</p> <p>-20 centigrade to -70 centigrade for 12 months in lyophilized state;            -70 centigrade for 3 months under sterile conditions after reconstitution.</p>
<b>Reconstitution</b>	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

<b>Gene Name</b>	<a href="#">CD274</a>
<b>Official Symbol</b>	<a href="#">CD274</a>
<b>Synonyms</b>	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
<b>Gene ID</b>	<a href="#">29126</a>
<b>mRNA Refseq</b>	<a href="#">NM_014143</a>

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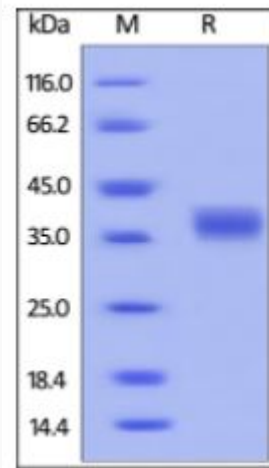
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**Protein Refseq** NP\_054862

**MIM** 605402

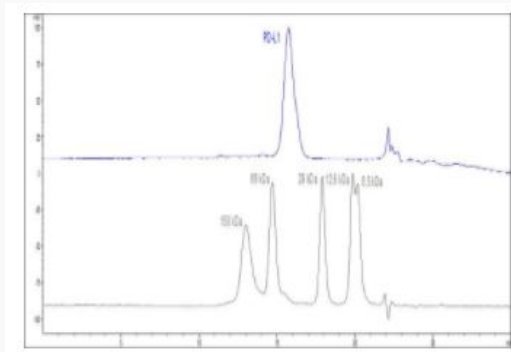
**UniProt ID** Q9NZQ7

**SDS-PAGE of CD274-2145H**



Human PD-L1, His 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 98%.

**SEC-HPLC of CD274-2145H**



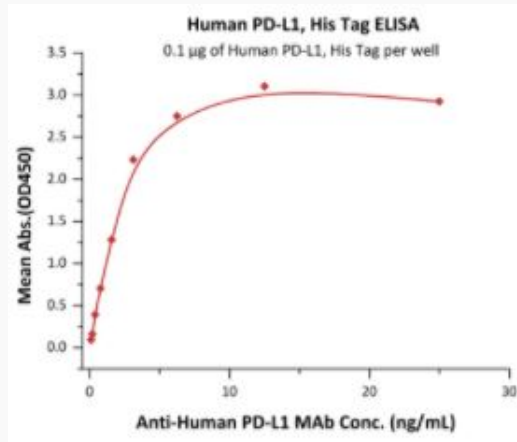
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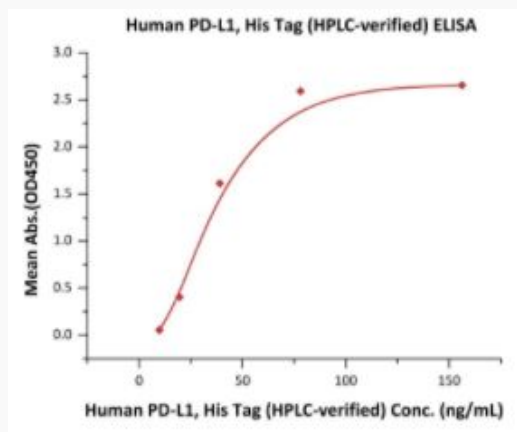
The purity of Human PD-L1, His Tag (HPLC verified) was greater than 90% as determined by SEC-HPLC.

**Bioactivity-ELISA of  
CD274-2145H**



Immobilized Human PD-L1, His Tag (HPLC verified) at 1 µg/mL (100 µL/well) can bind Anti-Human PD-L1 MAb (Human IgG1) with a linear range of 0.1-3 ng/mL (QC tested).

**Bioactivity-ELISA of  
CD274-2145H**



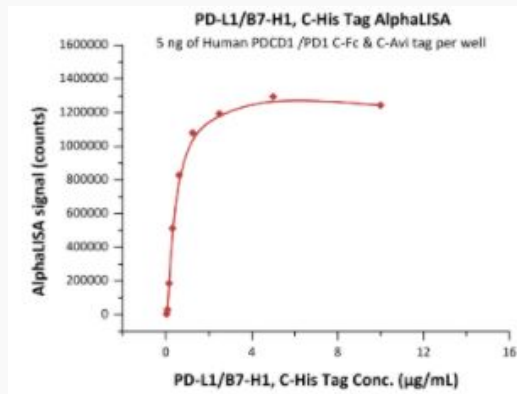
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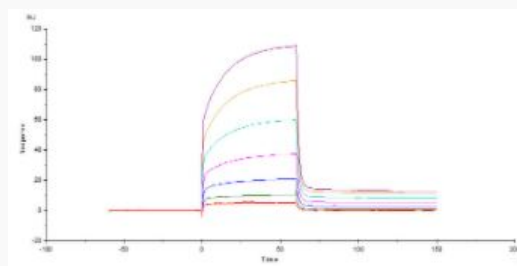
Immobilized Human PD-L1, His Tag (HPLC verified) at series of concentration on MonRab<sup>TM</sup> Anti-His Tag (C-term) Antibody precoated (0.1 µg/well) plate, can bind Human PD-1, Mouse IgG2a Fc Tag (HPLC-verified) at 5 µg/mL (100 µL/well) with a linear range of 10-78 ng/mL (Routinely tested).

**Bioactivity-alpha of  
CD274-2145H**



Biotinylated Human PD-1, Fc,Avitag at 1 µg/mL (5 µL/well) can bind Human PD-L1, His Tag (HPLC verified) with a linear range of 0.02-0.625 µg/mL as determined in a alphaLISA homogeneous assay (Routinely tested).

**Bioactivity-SPR of  
CD274-2145H**



Human PD-1, Fc Tag captured on CM5 chip via anti-human IgG Fc antibody, can bind Human PD-L1, His Tag (HPLC verified) with an affinity constant of 3.6 µM as

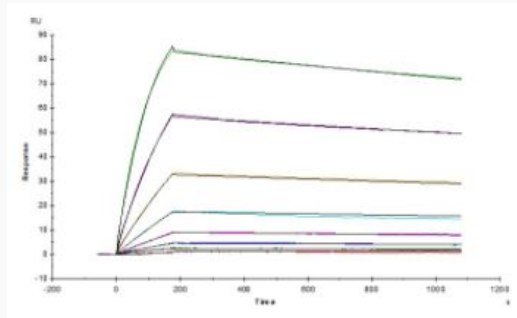
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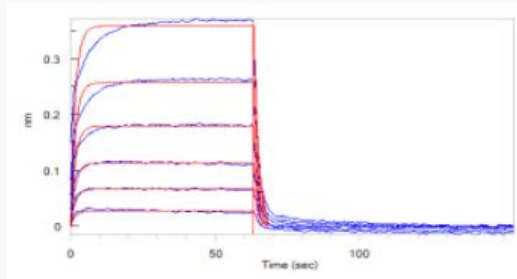
determined in a SPR assay (Routinely tested).

**Bioactivity-SPR of  
CD274-2145H**



Anti-Human PD-L1 Mab (Human IgG1) captured on CM5 chip via anti-human IgG Fc antibodies surface, can bind Human PD-L1, His Tag (HPLC verified) with an affinity constant of 0.286 nM as determined in a SPR assay (Routinely tested).


**Bioactivity-BLI of  
CD274-2145H**

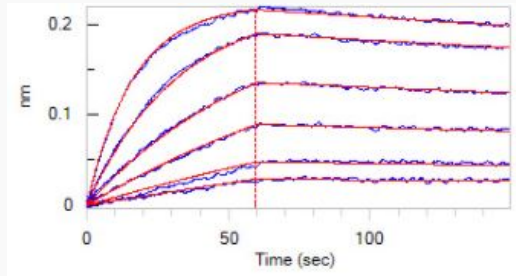


Loaded Human PD-1, Fc Tag, low endotoxin (HPLC verified) on ProteinA Biosensor, can bind Human PD-L1, His Tag (HPLC verified) with an affinity constant of 5.3  $\mu$ M as determined in BLI assay (QC tested).

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**Bioactivity-BLI of  
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Loaded Anti-Human PD-L1 MAb (Human IgG1) on AHC Biosensor, can bind Human PD-L1, His Tag (HPLC verified) with an affinity constant of 1.61 nM as determined in BLI assay (Routinely tested).

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