

## PD-L1 Protein, Human, Recombinant

## General Information

Synonyms:	CD274 molecule;PDCD1L1;PD-L1;PDL1;PDCD1LG1;B7H1;B7-H;B7-H1
Protein Construction:	A DNA sequence encoding the human CD274 (NP_054862.1) (Met1-Arg238) was expressed. Predicted N terminal: Phe 19
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q9NZQ7-1
Molecular Weight:	25.2 kDa (predicted); 36 kDa (reducing condition, due to glycosylation)

## QC Testing

Biological Activity:	1.Immobilized PD-L1 Protein, Human, Recombinant at 2 µg/mL (100 µL/well) can bind Anti-PD-L1 Antibody, Human IgG1 (Atezolizumab), the EC50 is 4-15 ng/mL. 2.Anti-PDL1 Antibody, Human IgG1 captured on Protein A chip can bind PD-L1 Protein, Human, Recombinant with an affinity constant of 8.81 nM as determined in an SPR assay (Biacore 8K). 3.Loaded Recombinant Human PD-1 Protein, hFc Tag (Cat#TMPY-04898) on AHC Biosensor, can bind PD-L1 Protein, Human, Recombinant with an affinity constant of 2.800 µM as determined in BLI assay (Sartorius Octet RED384).
Purity:	≥ 95 % as determined by SDS-PAGE. ≥ 95 % as determined by SEC-HPLC.
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

## Preparation and Storage

Reconstitution:	Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.
Stability & Storage:	It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots. <small>Actual storage temperature shall be subject to the COA.</small>
Shipping:	In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Programmed death-1 ligand-1 (PD-L1, CD274, B7-H1) has been identified as the ligand for the immunoinhibitory receptor programmed death-1 (PD1/PDCD1) and has been demonstrated to play a role in the regulation of immune responses and peripheral tolerance. PD-L1/B7-H1 is a member of the growing B7 family of immune molecules and this protein contains one V-like and one C-like Ig domain within the extracellular domain, and together with PD-L2, are two ligands for PD1 which belongs to the CD28/CTLA4 family expressed on activated lymphoid cells. By binding to PD1 on activated T-cells and B-cells, PD-L1 may inhibit ongoing T-cell responses by inducing apoptosis and arresting cell-cycle progression. Accordingly, it leads to growth of immunogenic tumor growth by increasing apoptosis of antigen specific T cells and may contribute to immune evasion by cancers. PD-L1 thus is regarded as promising therapeutic target for human autoimmune disease and malignant cancers. Cancer Immunotherapy Co-inhibitory Immune Checkpoint Targets Immune Checkpoint Immune Checkpoint Blockade: Blocking Antibody Immune Checkpoint Blockade: PD-L1 / B7-H1 / C Immune Checkpoint Detection: Antibodies Immune Checkpoint Detection: ELISA Antibodies Immune Checkpoint Detection: FCM Antibodies Immune Checkpoint Detection: ICC Antibodies Immune Checkpoint Detection: IHC Antibodies Immune Checkpoint Detection: WB Antibodies Immune Checkpoint Proteins Immune Checkpoint Targets Immunotherapy PD-L1 / B7-H1 / CD274 Immune Checkpoint Proteins Targeted Therapy

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