

PD-L1 Protein, Human, Recombinant (His)

General Information

Synonyms:	PDL1;B7-H;B7H1;PDCD1LG1;CD274 molecule;PD-L1;PDCD1L1;B7-H1
Protein Construction:	A DNA sequence encoding the N-terminal segment (Met 1-Thr 239) of the extracellular domain of human B7-H1 (NP_054862.1) was expressed with a C-terminal polyhistidine tag. Predicted N terminal: Phe 19
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q9NZQ7-1
Molecular Weight:	26.8 kDa (predicted); 35-38 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	1. Immobilized Anti-PDL1(GEN)-IgG1 Antibody (Atezolizumab) at 2 µg/mL (100 µL/well) can bind Recombinant Human PD-L1/B7-H1/CD274 Protein (His Tag), the EC50 is 0.7-2.1 ng/mL. 2. Captured Anti-PD-L1 Mab (Human IgG1) on proA Chip can bind PD-L1 with an affinity constant of 1.381 nM as determined in a SPR assay (QC tested).
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

Reference

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