

PD-L1 Protein, Mouse, Recombinant (His & Avi), Biotinylated

General Information

Synonyms: Pdcd1l1;B7h1;Pdl1;Pdcd1lg1;A530045L16Rik;CD274 molecule

Protein Construction: A DNA sequence encoding the Mouse CD274 (NP_068693.1)(Met1-Thr238) was expressed with a C-terminal polyhistidine tag followed by an AVI tag. The expressed protein was biotinylated in vivo by the Biotin-Protein ligase (BirA enzyme) which is co-expressed. Predicted N terminal: Phe 19

Species: Mouse

Expression Host: HEK293 Cells

Accession: NP_068693.1

Molecular Weight: 28.02 kDa (predicted); 46.7 kDa (reducing conditions)

QC Testing

Biological Activity: Immobilized Anti-PDL1(GEN)-IgG1 Antibody (Atezolizumab) at 2 µg/mL (100 µL/well) can bind Recombinant Mouse PD-L1 Protein (His & AVI Tag), Biotinylated, the EC50 is 0.3-1.0 ng/mL(QC tested).

Purity: ≥ 95 % as determined by SDS-PAGE. ≥ 90 % 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:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

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.

Actual storage temperature shall be subject to the COA.

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 Prote
Targeted Therapy

Reference

- Iwai Y, et al. (2002) Involvement of PD-L1 on tumor cells in the escape from host immune system and tumor immunotherapy by PD-L1 blockade. *Proc Natl Acad Sci U S A.* 99(19): 12293-7.
- Ghebeh H, et al. (2006) The B7-H1 (PD-L1) T lymphocyte-inhibitory molecule is expressed in breast cancer patients with infiltrating ductal carcinoma: correlation with important high-risk prognostic factors. *Neoplasia.* 8(3): 190-8.
- Salih HR, et al. (2006) The role of leukemia-derived B7-H1 (PD-L1) in tumor-T-cell interactions in humans. *Exp Hematol.* 34(7): 888-94.
- Wilcox RA, et al. (2009) B7-H1 (PD-L1, CD274) suppresses host immunity in T-cell lymphoproliferative disorders. *Blood.* 114(10): 2149-58.
- Ruggiero A, et al. (2009) Crystal structure of PD-L1, a ribosome inactivating protein from *Phytolacca dioica* L. leaves with the property to induce DNA cleavage. *Biopolymers.* 91(12): 1135-42.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel: 781-999-4286 E_mail: info@targetmol.com Address: 34 Washington Street, Wellesley Hills, MA 02481