

Catalog Number: Eg31414

**Basic Information****Species:**  
human**Purity:**  
>90 %, SDS-PAGE**GenelD:**  
29126**Technical Specifications****Purity:**

&gt;90 %, SDS-PAGE

**Endotoxin Level:**<1.0 EU/  $\mu$ g protein, LAL method**Source:****Predicted Molecular Mass:****SDS-PAGE:****Formulation:**

Lyophilized from sterile PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

**Biological Activity****Storage and Shipping****Storage:**

It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

- Until expiry date, -20°C to -80°C as lyophilized proteins.
- 3 months, -20°C to -80°C under sterile conditions after reconstitution.

**Shipping:**

The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

**Reconstitution**

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

**Background**

Programmed cell death ligand 1 (PD-L1, also known as CD274 or B7-H1) is a 290 aa type I transmembrane protein that belongs to the B7 family of the Ig superfamily. PD-L1 is expressed by some hematopoietic cell types including macrophages, some activated T cells and B cells, DCs, and is further upregulated upon activation. It is also expressed on many nonhematopoietic cell types. PD-L1 is frequently upregulated in a wide variety of tumors, including melanoma, ovarian, lung, glioblastoma, breast, and pancreatic cancers. PD-L1 and PD-L2 are two ligands of PD-1. Engagement of PD-1 by PD-L1 or PD-L2 transduces a signal that inhibits T-cell proliferation, cytokine production, and cytolytic function. It is critical for the regulation of T-cell function during tolerance, autoimmunity and infection. Blockade of the PD-1/PD-L1 pathway has been developed for cancer immunotherapy.

**References**

1. Arlene H Sharpe, et al. (2007) Nat Immunol. 8(3):239-45.
2. Mary E Keir, et al. (2008) Annu Rev Immunol. 26:677-704.
3. James L Riley, (2009) Immunol Rev. 229(1):114-25.
4. Loise M Francisco, et al. (2010) Immunol Rev. 236:219-42.
5. Yanyan Han, et al. (2020) Am J Cancer Res. 10(3):727-742.

**Synonyms**

CD274

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## Selected Validation Data

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**For technical support and original validation data for this product please contact**

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