

## Technical Data Sheet

### Biotinylated Human PD-L2 (C-Fc-Avi)

**Catalog Number:** 813403, 813404

**Size:** 25 ug, 100 ug

**Target Name:** PDL2, , Butyrophilin B7-DC, CD273, PDCD1 ligand 2

**Regulatory Status:** RUO

#### Product Details

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**Application:** ELISA, BLI

**Format:** Liquid, Biotinylated

**Expression Host:** CHO

**Species:** Human

**Sources:** Recombinant Human PD-L2 (Leu20-Pro219) with C-terminus Fc-Avi-tag is expressed in CHO cell. This protein was site-specifically labeled with Biotin by BirA ligase.

**Accession Number:** Q9BQ51

**Molecular Weight:** The protein has a predicted molecular weight of 51.2 kDa. Under DTT-reducing conditions, it migrates at approximately 75 kDa on SDS-PAGE.

**Affinity Tag:** C-Fc-Avi

**Purity:** >95% based on SDS-PAGE under reducing condition

**Formulation:** 1xPBS buffer, pH7.4, 0.22 µm filtered

**Endotoxin level:** Not tested

**Protein Concentration:** 25µg size is bottled at 0.2mg/mL concentration. 100 µg size is supplied at a lot-specific concentration.

**Storage and Handling:** Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 µm-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution should be aliquoted and stored at ≤ -70°C to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability.

#### Background Information

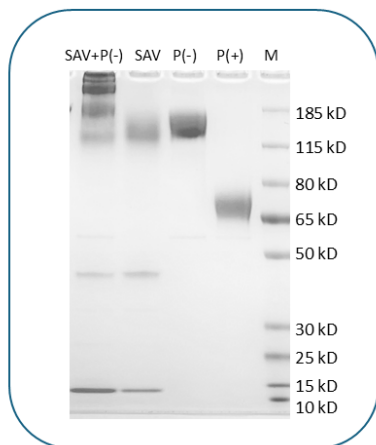
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Programmed death ligand 2 (PD-L2, also known as B7-DC or CD273) is a type I transmembrane protein and a member of the B7 family, containing one V-like and one C-like Ig domain in its extracellular region. It is mainly expressed on antigen-presenting cells, such as dendritic cells, macrophages, and B cells, and its expression can be induced by IFN- $\gamma$  or LPS. PD-L2 serves as a high-affinity ligand for PD-1, a receptor expressed on activated T and B cells, and inhibits T cell activation, proliferation, and cytokine production, thus contributing to immune tolerance and evasion, particularly in tumors and autoimmunity. PD-L2 also plays a PD-1-independent role in asthma by regulating airway hyperresponsiveness through IL-12 production and binding to an alternative receptor, RGMb, involved in respiratory immune regulation. Its dual functions in both PD-1-dependent and independent pathways highlight PD-L2 as a critical immunoregulatory molecule

and a potential therapeutic target in cancer, autoimmunity, and allergic diseases.

## Product Data

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Human PD-L2 Protein (C-Fc-Avi) was biotinylated in vitro using BirA ligase. SDS-PAGE analysis under reducing (P+) and non-reducing (P-) conditions shows the protein has a purity greater than 95%. A gel shift assay using co-incubation with streptavidin indicates that the biotinylation efficiency of Human PD-L2 protein exceeds 80%.