

Technical Data Sheet

Biotinylated Human PD-L1 Protein (C-His-Avi)

Catalog Number: 800703, 800704

Size: 25 ug, 100 ug

Target Name: PD-L1, CD274, B7-H1, PDCD1L1, PDCD1LG1,

Regulatory Status: RUO

Product Details

Application: ELISA, BLI

Format: Liquid, Biotinylated

Expression Host: HEK293

Species: Human

Sources: Recombinant Human PD-L1 (Phe19-Thr239) with C-terminus His tag & Avi tag is expressed in HEK293 cells. This protein was site-specifically labeled with Biotin by BirA ligase.

Accession Number: Q9NZQ7

Molecular Weight: The protein has a predicted molecular weight of 28 kDa and migrates at approximately 35 kDa on SDS-PAGE under DTT-reducing conditions. This protein was site-specifically labeled with Biotin by BirA ligase.

Affinity Tag: C-His-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.

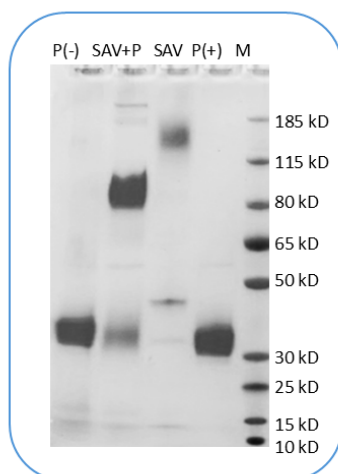
Storage and Handling: Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 µm-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution 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

Programmed death-ligand 1 (PD-L1, also known as CD274 or B7-H1) is a type I transmembrane glycoprotein and a key immune checkpoint molecule in the B7 family. It is broadly expressed on immune cells (such as T cells, B cells, macrophages, and dendritic cells) and in various tissues, as well as on many tumor types. PD-L1 interacts with its receptor PD-1, expressed on activated T and B cells, to deliver inhibitory signals that suppress T cell proliferation, cytokine production, and cytolytic function. This interaction plays a critical role in maintaining immune homeostasis, preventing autoimmunity, and enabling immune evasion by tumors. Therapeutic antibodies targeting PD-L1 or PD-1 have shown significant clinical benefit in cancer immunotherapy by restoring T cell activity. PD-L1 is also implicated in tolerance during pregnancy, chronic infections, and transplantation. It

contains two extracellular Ig-like domains, and its expression can be induced by inflammatory cytokines such as IFN- γ .

Product Data



Human PD-L1 (C-His-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 the PD-L1 protein exceeds 85%.