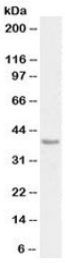
PD-L1 Antibody Biotin Conjugate (R33263BTN)

Catalog No.	Formulation	Size
R33263BTN	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Biotin Conjugate
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	29126
Applications	Western Blot : 0.3-1ug/ml Immunohistochemistry (FFPE) : suitable ELISA (peptide) LOD : 1:128000
Limitations	This PD-L1 antibody is available for research use only.



Western blot testing of human heart lysate with PD-L1 antibody biotin conjugate at 0.3ug/ml. Predicted molecular weight ~34kDa (unmodified), 45-70 kDa (glycosylated).

Description

Programmed death-ligand 1 (PD-L1), encoded by the CD274 gene, is a type I transmembrane immune checkpoint ligand that plays a critical role in regulating T cell activity and maintaining immune tolerance. PD-L1 Antibody Biotin Conjugate recognizes this immunomodulatory cell surface protein, which is widely referred to in the literature as PD-L1, CD274, or B7-H1. PD-L1 belongs to the B7 family of immune regulatory molecules and interacts with the programmed cell death protein 1 (PD-1) receptor expressed on activated T lymphocytes. Binding of PD-L1 to PD-1 transmits inhibitory signals

that suppress T cell proliferation and cytokine production, providing an essential mechanism for controlling immune responses and preventing excessive immune activation.

Physiologically, PD-L1 expression is detected on a variety of immune cell populations including dendritic cells, macrophages, activated B cells, and some T cell subsets. It is also expressed on epithelial and endothelial cells in multiple tissues. Expression of CD274 is strongly induced by inflammatory cytokines such as interferon-gamma, which activates transcriptional signaling pathways that increase PD-L1 production during immune stimulation. Through this mechanism, PD-L1 functions as an important regulator of immune homeostasis by limiting the magnitude of immune responses in inflamed tissues.

The CD274 gene is located on chromosome 9p24.1 and encodes a glycosylated membrane protein containing extracellular immunoglobulin-like domains characteristic of B7 family proteins. PD-L1 is primarily localized to the plasma membrane where it functions as a ligand for PD-1 on T cells. In addition to its normal immune regulatory roles, PD-L1 expression has become a major focus of cancer immunology research. Many tumors increase PD-L1 expression on the surface of malignant epithelial cells or tumor-associated immune cells, allowing tumor cells to suppress anti-tumor immune responses and evade immune surveillance. Because of this biology, CD274 antibody reagents are widely used in studies investigating immune checkpoint signaling, tumor immunology, and immune microenvironment interactions.

Several strong literature synonyms are associated with this immune checkpoint ligand, including PD-L1, Programmed death-ligand 1, B7-H1, and PDCD1 ligand 1. These names are commonly used across immunology, oncology, and pathology research fields to describe the same CD274 immune checkpoint protein. Biotin-conjugated antibodies allow flexible detection through avidin or streptavidin-based amplification systems, enabling sensitive detection of PD-L1-positive cells in a variety of experimental workflows. This biotin-conjugated PD-L1 antibody is suitable for research applications investigating immune checkpoint expression and immune regulation and is available from NSJ Bioreagents.

This PD-L1 antibody is part of a broader PD-L1 antibody panel offered by NSJ Bioreagents.

Application Notes

Optimal dilution of the PD-L1 antibody biotin conjugate should be determined by the researcher.

Immunogen

Amino acids CKKQSDTHLEET were used as the immunogen for this PD-L1 antibody.

Storage

Aliquot and store the PD-L1 antibody at -20oC.