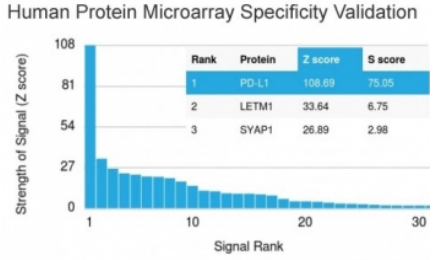
PD-L1 Antibody - Microarray Validated / B7-H1 / CD274 [clone PDL1/2745] (V8009)

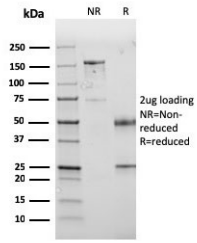
Catalog No.	Formulation	Size
V8009-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8009-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8009SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	PDL1/2745
Purity	Protein G affinity chromatography
UniProt	Q9NZQ7
Localization	Cell surface, cytoplasmic
Applications	ELISA (order BSA-free format for coating)
Limitations	This PD-L1 antibody is available for research use only.



Protein microarray specificity analysis of PD-L1 antibody. PD-L1 Antibody Microarray Validated (mouse monoclonal clone PDL1/2745) was evaluated using the HuProt(TM) human protein microarray platform containing more than 19,000 full-length human proteins. The results show PD-L1 as the top-ranked binding target, demonstrating strong and specific recognition of Programmed death-ligand 1 (CD274). Z-score analysis measures the strength of antibody binding relative to the background distribution of signals across the array, expressed as standard deviations above the mean signal intensity. The S-score represents the difference between the Z-scores of adjacent ranked proteins and therefore reflects the relative specificity of the antibody for its intended target. The prominent separation between PD-L1 and other proteins on the array supports the high specificity of clone PDL1/2745 for PD-L1.



SDS-PAGE analysis of purified, BSA-free PD-L1 antibody (clone PDL1/2745) as confirmation of integrity and purity.

Description

Programmed death-ligand 1 (PD-L1), encoded by the CD274 gene, is an immune checkpoint ligand that plays a central role in regulating T cell responses and maintaining immune tolerance. PD-L1 Antibody Microarray Validated targets this transmembrane immunoregulatory 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 functions primarily through interaction with the inhibitory receptor PD-1 expressed on activated T lymphocytes. Because of this biology, PD-L1 antibody detection is widely used in research examining immune checkpoint signaling, tumor immune evasion, and immune regulation within epithelial and immune cell populations.

The PD-1/PD-L1 signaling pathway is a key mechanism for maintaining immune homeostasis. Binding of PD-L1 to PD-1 transmits inhibitory signals that reduce T cell proliferation, cytokine production, and cytotoxic activity, thereby limiting immune responses and preventing excessive immune activation. While this pathway normally protects tissues from immune-mediated damage, many tumors exploit the checkpoint mechanism by increasing PD-L1 expression on tumor cells and tumor-associated immune cells. Elevated PD-L1 expression suppresses anti-tumor immune responses and allows malignant cells to evade immune surveillance. For this reason, CD274 antibody reagents are frequently used in studies investigating tumor immunology, immune checkpoint biology, and inflammatory signaling pathways.

The CD274 gene is located on chromosome 9p24.1 and encodes a type I transmembrane glycoprotein containing extracellular immunoglobulin-like domains typical of B7 family proteins. PD-L1 expression is normally detected on antigen-presenting cells including dendritic cells and macrophages, as well as on certain epithelial and endothelial cell populations. Expression can be strongly induced by inflammatory cytokines, particularly interferon-gamma, which activates transcriptional pathways that increase PD-L1 production during immune responses. In many cancers, PD-L1 expression becomes elevated in tumor epithelial cells and infiltrating immune cells, linking CD274 expression to regulation of immune responses within the tumor microenvironment.

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 established names help ensure consistent recognition of the CD274 immune checkpoint protein across immunology, oncology, and pathology research. In tissue-based studies, PD-L1 antibody staining is typically observed as membranous signal in epithelial cells and immune cell populations where the protein functions as a cell surface ligand regulating T cell responses. This mouse monoclonal PD-L1 antibody is microarray validated and is available from NSJ Bioreagents for investigators studying immune checkpoint signaling, tumor immunology, and immune regulation.

For additional reagents and information on CD274 signaling and tumor immune evasion, visit our microarray-validated PD-L1 Antibody / Tumor Microenvironment Immune Checkpoint Antibody page.

Application Notes

Optimal dilution of the microarray validated PD-L1 antibody should be determined by the researcher.

Immunogen

A portion of amino acids 39-191 from the human protein was used as the immunogen for this PD-L1 antibody.

Storage

Store the PD-L1 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

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