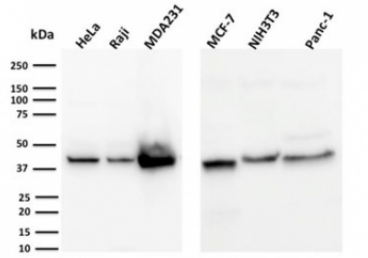
PD-L1 Antibody for WB - Protein Microarray Validated / B7-H1 / CD274 [clone PDL1/2744] (V7988)

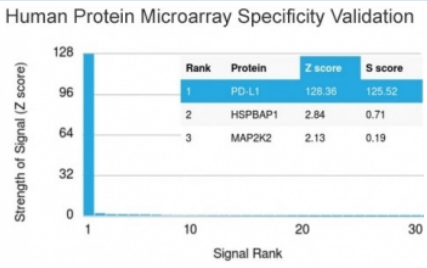
Catalog No.	Formulation	Size
V7988-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7988-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7988SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

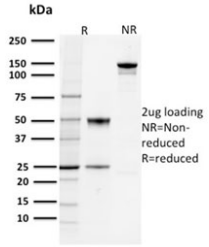
Availability	1-3 business days
Species Reactivity	Human, Mouse
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	PDL1/2744
Purity	Protein G affinity chromatography
UniProt	Q9NZQ7
Localization	Cell surface, cytoplasmic
Applications	ELISA (order BSA-free Format For Coating) : Western Blot : 1-2ug/ml
Limitations	This PD-L1 antibody is available for research use only.



Western blot analysis of PD-L1 antibody in human and mouse cell lysates. PD-L1 Antibody for WB (mouse monoclonal clone PDL1/2744) was used to probe lysates from multiple cell lines. Lane 1: human HeLa cells, Lane 2: human Raji cells, Lane 3: human MDA231 cells, Lane 4: human MCF-7 cells, Lane 5: mouse NIH3T3 cells, Lane 6: mouse Panc.1 cells. Bands are detected between approximately 40 and 60 kDa, consistent with glycosylated forms of Programmed death-ligand 1 (PD-L1 / CD274), an immune checkpoint protein expressed on the cell surface. The predicted molecular weight of the unglycosylated PD-L1 protein is approximately 34 kDa, while N-linked glycosylation commonly shifts the apparent migration to roughly 45-70 kDa in western blot assays. The banding pattern observed across these lysates aligns with the known glycosylated forms of PD-L1 frequently reported in biochemical studies of CD274 expression.



Protein microarray specificity analysis of PD-L1 antibody. PD-L1 Antibody for WB (mouse monoclonal clone PDL1/2744) was evaluated using the HuProt(TM) human protein microarray containing more than 19,000 full-length human proteins. Programmed death-ligand 1 (PD-L1 / CD274) ranks as the top binding target on the array, demonstrating strong and highly specific recognition by clone PDL1/2744. The Z-score represents the signal strength generated when the antibody binds a given protein relative to the background distribution of signals across the array, expressed as standard deviations above the mean. The S-score represents the difference between Z-scores of adjacent ranked proteins and reflects the relative specificity of the antibody for its intended target. The clear separation between PD-L1 and all other proteins on the array confirms the high specificity of protein microarray validated clone PDL1/2744 for PD-L1.



SDS-PAGE analysis of purified, BSA-free PD-L1 antibody (clone PDL1/2744) as confirmation of integrity and purity.

Description

Programmed death-ligand 1 (PD-L1), encoded by the CD274 gene, is a type I transmembrane immune checkpoint protein belonging to the B7 family of immunoregulatory molecules. PD-L1 Antibody for WB Protein Microarray Validated recognizes this widely studied immune checkpoint ligand, which is commonly referred to as PD-L1, CD274, or B7-H1 in the literature. PD-L1 functions as the primary ligand for the programmed cell death protein 1 (PD-1) receptor expressed on activated T lymphocytes. Engagement of PD-L1 with PD-1 delivers inhibitory signals that suppress T cell proliferation, cytokine production, and cytotoxic activity, thereby helping regulate immune activation and maintain immune tolerance in peripheral tissues.

Western blot analysis is one of the most widely used biochemical approaches for studying PD-L1 expression and post-translational modification. PD-L1 Antibody for WB Protein Microarray Validated is well suited for detecting CD274 protein in cell lysates and tissue extracts where investigators examine immune checkpoint signaling pathways or evaluate PD-L1 expression changes following cytokine stimulation. The PD-L1 protein contains extracellular immunoglobulin-like domains, a single transmembrane region, and a short cytoplasmic tail typical of B7 family ligands. These structural features contribute to its function as a membrane-associated regulatory ligand that controls immune checkpoint signaling through PD-1 receptor engagement.

In western blot experiments, PD-L1 frequently appears as multiple bands because the protein undergoes extensive N-linked glycosylation. The predicted molecular weight of the unglycosylated PD-L1 core protein is approximately 34 kDa,

while glycosylated forms commonly migrate between roughly 40 and 70 kDa on SDS-PAGE gels. These higher molecular weight bands reflect glycan modifications that influence PD-L1 stability, trafficking, and receptor interaction. Biochemical studies often confirm the identity of PD-L1 by deglycosylation assays that collapse the higher molecular weight species to the lower molecular weight core protein band. Because of these characteristic migration patterns, western blot analysis provides valuable insight into PD-L1 expression levels as well as its modification state during immune activation or tumor progression studies.

The CD274 gene is located on chromosome 9p24.1 and is strongly regulated by inflammatory signaling pathways. Cytokines such as interferon-gamma activate transcription factors that increase PD-L1 expression in immune cells and epithelial tissues. Many cancers exploit this pathway by increasing PD-L1 expression on tumor cells, allowing them to suppress anti-tumor immune responses and evade immune surveillance. For this reason, CD274 antibody reagents are widely used in research focused on tumor immunology, immune checkpoint signaling, and inflammatory regulation. This mouse monoclonal PD-L1 antibody is validated by protein microarray analysis and is suitable for western blot detection of PD-L1 expression in research applications, 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 for WB should be determined by the researcher.

Immunogen

A recombinant human partial protein (amino acids 39-191) was used as the immunogen for the protein microarray validated PD-L1 antibody.

Storage

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