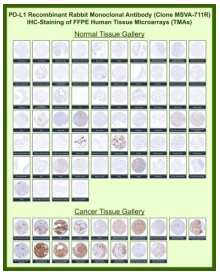
PD-L1 Antibody for IHC / CD274 Immunohistochemistry Antibody [clone MSVA-711R] (V6082)

Catalog No.	Formulation	Size
V6082-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6082-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Recombinant RABBIT MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	MSVA-711R
UniProt	Q9NZQ7
Localization	Cell membrane, Early endosome membrane, Endomembrane system, Recycling endosome membrane
Applications	Immunohistochemistry (FFPE): 1:100-1:200
Limitations	This PD-L1 Antibody for IHC / CD274 Immunohistochemistry Antibody is available for research use only.



PD-L1 Antibody for IHC Tissue Microarray (TMA). Immunohistochemistry analysis of Programmed death-ligand 1 / CD274, also known as PD-L1, in formalin-fixed paraffin-embedded human normal and cancer tissue microarrays using rabbit monoclonal antibody clone MSVA-711R. Tissue microarray (TMA) staining with HRP-DAB brown chromogen demonstrates membranous and cytoplasmic localization consistent with immune checkpoint ligand expression, with minimal to absent staining in most normal tissues and detectable signal in immune cell populations within lymphoid-rich tissues. Within tumor tissue microarrays, variable membranous staining is observed across multiple carcinoma types, reflecting tumor-associated PD-L1 expression and immune evasion mechanisms. Evaluation across large TMA panels enables direct comparison of CD274 expression across diverse tissue types under standardized conditions. The observed staining patterns align with reported PD-L1 expression profiles in the Human Protein Atlas and support its role in immune checkpoint signaling and tumor-immune interactions.

Description

Programmed death-ligand 1 (CD274), commonly known as PD-L1, is an immune checkpoint protein expressed on tumor cells and antigen-presenting cells that regulates T cell activation through interaction with PD-1. PD-L1 Antibody for IHC / CD274 Immunohistochemistry Antibody is widely used to evaluate immune checkpoint signaling and tumor-associated immune evasion in formalin-fixed, paraffin-embedded tissues. Its expression within tumor and immune cell populations makes it a central marker for studying the tumor microenvironment and immune regulation.

PD-L1 antibody, also referred to as CD274 antibody or B7-H1 antibody, produces characteristic membranous staining in tumor cells and tumor-infiltrating immune cells, with occasional cytoplasmic signal depending on protein turnover and cellular context. In immunohistochemistry, PD-L1 staining is observed across a wide range of malignancies including lung carcinoma, melanoma, renal cell carcinoma, and other solid tumors, as well as in macrophages and lymphocytes within the tumor stroma. Tissue microarray (TMA) analysis highlights heterogeneous but biologically consistent staining patterns across cancer tissue panels, reflecting variable expression within and between tumor types.

Tissue microarray-based immunohistochemistry provides a powerful platform for comparing PD-L1 expression across normal and malignant tissues under standardized staining conditions. Across TMA panels, PD-L1 staining reveals distinct membranous labeling of tumor cells alongside variable staining of immune infiltrates, enabling assessment of tumor immune context and spatial distribution of checkpoint expression. Most normal tissues demonstrate limited or inducible expression, typically confined to immune-related cell populations, creating clear contrast between physiologic expression and tumor-associated upregulation.

In cancer research and diagnostic applications, PD-L1 immunohistochemistry is extensively used to characterize immune checkpoint status and to stratify tumors based on their interaction with the immune system. The presence, intensity, and localization of PD-L1 staining, particularly membranous expression on tumor cells, are critical parameters for evaluating immune evasion mechanisms and for correlating with responsiveness to checkpoint blockade therapies.

PD-L1 is a type I transmembrane protein belonging to the B7 family of immune regulatory ligands and is primarily localized to the cell membrane. Its expression is dynamically regulated by inflammatory signals such as interferon-gamma, linking immune activation to checkpoint-mediated suppression. This inducible expression pattern contributes to the complex and heterogeneous staining observed across tissue microarray panels.

Overall, PD-L1 Antibody for IHC enables robust detection of CD274 expression with clear membranous staining patterns and reproducible performance across tissue microarray panels. Its consistent detection of tumor and immune cell expression supports its use in immunohistochemistry for tumor characterization, immune profiling, and evaluation of the tumor microenvironment.

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.

This antibody is also part of a broader collection of IHC antibodies validated by tissue microarray analysis, supporting consistent staining across normal and cancer tissues.

Application Notes

1. Optimal dilution of the PD-L1 Antibody for IHC / CD274 Immunohistochemistry Antibody should be determined by the researcher.

2. This CD274/PD-L1 antibody is recombinantly produced by expression in CHO cells.

3. Manual Protocol: Freshly cut sections should be used (less than 10 days between cutting and staining). Heat-induced antigen retrieval for 5 minutes in an autoclave at 121oC in pH 7.8 Target Retrieval Solution buffer. Apply the antibody at a dilution of 1:150 at 37oC for 60 minutes. Visualization of bound antibody by the EnVision Kit (Dako, Agilent) according to

the manufacturer's directions.

Immunogen

KLH-conjugated linear peptide corresponding to human PD-L1 was used as the immunogen for the CD274/PD-L1 antibody.

Storage

CD274/PD-L1 antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

Alternate Names

CD274 antibody, PD-L1 antibody, B7-H1 antibody, Programmed death-ligand 1 antibody, PDCD1 ligand antibody

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