

Anti-Mouse CD274 (PD-L1) Antibody

Catalog Number:	201301, 201302
Size:	100 ug, 500 ug
Target Name:	CD274, PD-L1, B7-H1
Regulatory Status:	RUO

PRODUCT DETAILS

Clone:	10F.9G2
Application:	Flow Cytometry
Reactivity:	Mouse
Format:	Purified
Isotype:	Rat IgG2b
Antibody Type:	Monoclonal
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Protein Concentration:	0.5 mg/mL
Storage and Handling:	The antibody solution should be stored between 2°C and 8°C
Recommended Usage:	For flow cytometric staining, it is recommended to use less than 0.1 µg of this reagent per 0.5-1.0 million cells in a 100 µL volume. Optimal reagent performance should be determined by titration for each specific application
Isotype Control:	300301

BACKGROUND INFORMATION

PD-L1 (Programmed Death-Ligand 1), also known as CD274 or B7-H1, is a 40 kDa type I transmembrane protein belonging to the B7 family within the immunoglobulin receptor superfamily. The protein contains immunoglobulin V-like and C-like domains and is expressed by a wide range of hematopoietic and non-hematopoietic cells, including T cells, B cells, NK cells, dendritic cells, monocytes, endothelial cells, and various tumor cells. PD-L1 serves as a ligand for PD-1 (CD279) and plays a critical role in immune regulation by inhibiting T-cell activation, proliferation, and cytokine production upon engagement with PD-1. This interaction maintains immune homeostasis during infection or inflammation, preventing autoimmunity. However, in tumor microenvironments, PD-L1 expression enables immune evasion by suppressing cytotoxic T-cell function, contributing to tumor progression. PD-L1 expression is considered prognostic in several malignancies, including colon cancer and renal cell carcinoma. Alternative splicing results in multiple transcript variants. The PD-1/PD-L1 axis is a major target in cancer immunotherapy.