Mouse PD-L2/B7-DC PE-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: FAB1022P
100 TESTS

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse PD-L2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 20% cross-reactivity with recombinant human PD-L2 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse PD-L2 Leu20-Arg219 Accession # Q9WUL5
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

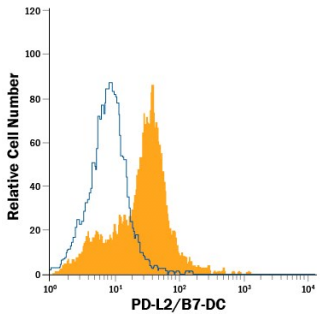
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Flow Cytometry	10 µL/10^6 cells	See Below

DATA

Flow Cytometry



Detection of PD-L2/B7-DC in RAW 264.7 Mouse Cell Line by Flow Cytometry. RAW 264.7 mouse monocyte/macrophage cell line was stained with Goat Anti-Mouse PD-L2/B7-DC PE-conjugated Antigen Affinity-purified Polyclonal Antibody (Catalog # FAB1022P, filled histogram) or isotype control antibody (Catalog # IC108P, open histogram). View our protocol for Staining Membrane-associated Proteins.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** • 12 months from date of receipt, 2 to 8 °C as supplied.

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BACKGROUND

Mouse Programmed Death Ligand 2 (PD-L2), also named B7DC, CD273, and Butyrophilin-like Protein, is a member of the B7 family of proteins that provide signals for regulating T-cell activation and tolerance (1-4). Other family members include B7-1, B7-2, B7-H2, PD-L1 (B7-H1), and B7-H3. B7 proteins are immunoglobulin (Ig) superfamily members with extracellular Ig-V-like and Ig-C-like domains and short cytoplasmic domains. Among the family members, they share from 20-40% amino acid (aa) sequence identity. The cloned mouse PD-L2 cDNA encodes a 247 aa type I membrane precursor protein with a putative 20 aa signal peptide, a 199 aa extracellular region containing one V-like and one C-like Ig domain, a 23 aa transmembrane region, and only a 5 aa cytoplasmic domain. The extracellular domains of mouse and human PD-L2 share approximately 72% aa sequence identity. PD-L2 is one of two ligands for programmed death-1 (PD-1), a member of the CD28 family of immunoreceptors. The other identified ligand is PD-L1. Mouse PD-L1 and PD-L2 share approximately 34% aa sequence identity and have similar functions. PD-L2 is constitutively expressed in lymphoid and non-lymphoid organs (1-4). The expression of PD-L2 is detected on endothelial cells, dendritic cells (DC), thymic epithelial cells, follicular, memory and regulatory B cells, macrophages and monocytes (1-5). PD-L2 expression is also upregulated in a variety of tumor cell lines. On previously activated T cells, PD-L2 interaction with PD-1 inhibits TCR-mediated proliferation and cytokine production, suggesting an inhibitory role in regulating immune responses. In contrast, a co-stimulatory function for the PD-1 ligands on resting T cells has also been reported. On DC, PD-L2 may promote a Th1 response, while on follicular B cells, PD-L2 would appear to regulate plasma cell and memory B cell generation (6,7).

References:

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