

## Brilliant Violet 421™ anti-mouse CD274 (B7-H1, PD-L1) Antibody

<b>Catalog# / Size</b>	124315 / 125 µL
<b>Clone</b>	10F.9G2
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	B7-H1, PD-L1
<b>Isotype</b>	Rat IgG2b, κ
<b>Description</b>	CD274, also known as B7-H1 or programmed death ligand 1 (PD-L1), is a 40 kD type I transmembrane protein and a member of the B7 family within the immunoglobulin receptor superfamily. It is expressed on T cells, B cells, NK cells, dendritic cells, IFN-γ activated endothelial cells, and monocytes. B7-H1 is one of the ligands of PD-1. The interaction of B7-H1 with PD-1 plays an important role in the inhibition of T cell responses. Other studies have shown that B7-H1 is able to costimulate T cell growth and cytokine production. CD274 is involved in costimulation essential for T cell proliferation and production of IL-10 and IFN-γ, in an IL-2-dependent and a PD-1-independent manner. Its interaction with PD-1 inhibits T cell proliferation and cytokine production.

### Product Details

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<b>Verified Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 421™ under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	<p>Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a>. For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.</p> <p>Brilliant Violet 421™ excites at 405 nm and emits at 421 nm. The standard bandpass filter 450/50 nm is recommended for detection. Brilliant Violet 421™ is a trademark of Sirigen Group Ltd.</p> <p><a href="#">Learn more about Brilliant Violet™.</a></p> <p>This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.</p>
<b>Excitation Laser</b>	Violet Laser (405 nm)
<b>Application Notes</b>	Additional reported applications (for the relevant formats) include: immunofluorescence <sup>4</sup> , blocking <sup>6,7,8,9</sup> , and immunohistochemistry of acetone-fixed frozen sections <sup>4, 11</sup> . The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 124303). For highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 124318) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin <0.01 EU/µg).

## Application References

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RRID AB\_10897097 (BioLegend Cat. No. 124315)

## Antigen Details

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<b>Structure</b>	40 kD type I transmembrane protein member of B7 family within the immunoglobulin receptor superfamily
<b>Distribution</b>	T cells, B cells, NK cells, dendritic cells, IFN- $\gamma$ activated endothelial cells, and monocytes
<b>Ligand/Receptor</b>	PD-1 (PDCD1)
<b>Cell Type</b>	B cells, Dendritic cells, Endothelial cells, Monocytes, NK cells, T cells
<b>Biology Area</b>	Cancer Biomarkers, Costimulatory Molecules, Immunology
<b>Molecular Family</b>	Adhesion Molecules, CD Molecules, Immune Checkpoint Receptors
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Sharpe A, <i>et al.</i> 2007. <i>Nat. Immunol.</i> 8:239.</li><li>2. Dong H, <i>et al.</i> 1999. <i>Nat. Med.</i> 5:1365.</li><li>3. Freeman G, <i>et al.</i> 2000. <i>J. Exp. Med.</i> 192:1027.</li></ol>
<b>Gene ID</b>	<a href="#">60533</a>

## Related Protocols

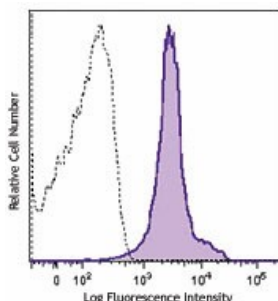
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[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

Purified anti-mouse CD274 (B7-H1, PD-L1), Biotin anti-mouse CD274 (B7-H1, PD-L1), PE anti-mouse CD274 (B7-H1, PD-L1), Brilliant Violet 421™ anti-mouse CD274 (B7-H1, PD-L1), APC anti-mouse CD274 (B7-H1, PD-L1), PE/Cyanine7 anti-mouse CD274 (B7-H1, PD-L1), Ultra-LEAF™ Purified anti-mouse CD274 (B7-H1, PD-L1), Brilliant Violet 711™ anti-mouse CD274 (B7-H1, PD-L1), Brilliant Violet 605™ anti-mouse CD274 (B7-H1, PD-L1), PE/Dazzle™ 594 anti-mouse CD274 (B7-H1, PD-L1), GolnVivo™ Purified anti-mouse CD274 (B7-H1, PD-L1), Brilliant Violet 785™ anti-mouse CD274 (B7-H1, PD-L1), PerCP/Cyanine5.5 anti-mouse CD274 (B7-H1, PD-L1), Brilliant Violet 650™ anti-mouse CD274 (B7-H1, PD-L1), PE/Cyanine5 anti-mouse CD274 (B7-H1, PD-L1), PE/Fire™ 640 anti-mouse CD274 (B7-H1, PD-L1), Spark Red™ 718 anti-mouse CD274 (B7-H1, PD-L1)

## Product Data



C57BL/6 mouse splenocytes were stained with CD274 (clone 10F.9G2) Brilliant Violet 421™ (filled histogram), or rat IgG2b, κ Brilliant Violet 421™ isotype control (open histogram).

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