

Spark PLUS B574™ anti-mouse CD274 (B7-H1, PD-L1) Antibody

Catalog# / Size	124355 / 25 µg 124356 / 100 µg
Clone	10F.9G2
Regulatory Status	RUO
Other Names	B7-H1, PD-L1
Isotype	Rat IgG2b, κ
Description	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

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Preparation	The antibody was purified by affinity chromatography and conjugated with Spark PLUS B574™ under optimal conditions.
Concentration	0.2 mg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is ≤ 1.0 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application. * Spark PLUS B574™ has a maximum excitation of 506 nm and a maximum emission of 574 nm.
Excitation Laser	Blue Laser (488 nm)
Application Notes	Additional reported applications (for the relevant formats) include: immunofluorescence ⁴ , blocking ^{6,7,8,9} , and immunohistochemistry of acetone-fixed frozen sections ^{4, 11} . 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

(PubMed link indicates
BioLegend citation)

1. Maier H, *et al.* 2007. *J. Immunol.* 178:2714.
2. Meng Q, *et al.* 2006. *Invest. Ophthalmol. Vis. Sci.* 47:4444. [PubMed](#)
3. Scarlett UK, *et al.* 2012. *J Exp Med.* 209:495. [PubMed](#)
4. Grabie N, *et al.* 2007. *Circulation* 116:2062. (IF, IHC)
5. Paterson AM, *et al.* 2011. *J. Immunol.* 187:1097.
6. Channappanavar R, *et al.* 2012. *PLoS One* 7:e39757. (Block)
7. Schreiber HA, *et al.* 2010. *PLoS One* 5:e11453. (Block) [PubMed](#)
8. Muthumani K, *et al.* 2011. *J. Immunol.* 187:2932. (Block) [PubMed](#)
9. Cripps JG, *et al.* 2010. *Hepatology* 52:1350. (Block) [PubMed](#)
10. Murakami R, *et al.* 2013. *PLoS One.* 8:73270. [PubMed](#)
11. Riella LV, *et al.* 2011. *Am. J. Transplant* 11:832-40. (IHC)
12. Lei GS, *et al.* 2015. *Infect Immun.* 83:572. [PubMed](#)

RRID

AB_3717244 (BioLegend Cat. No. 124355)
AB_3717244 (BioLegend Cat. No. 124356)

Antigen Details

Structure	40 kD type I transmembrane protein member of B7 family within the immunoglobulin receptor superfamily
Distribution	T cells, B cells, NK cells, dendritic cells, IFN- γ activated endothelial cells, and monocytes
Ligand/Receptor	PD-1 (PDCD1)
Cell Type	B cells, Dendritic cells, Endothelial cells, Monocytes, NK cells, T cells
Biology Area	Cancer Biomarkers, Costimulatory Molecules, Immunology
Molecular Family	Adhesion Molecules, CD Molecules, Immune Checkpoint Receptors
Antigen References	1. Sharpe A, <i>et al.</i> 2007. <i>Nat. Immunol.</i> 8:239. 2. Dong H, <i>et al.</i> 1999. <i>Nat. Med.</i> 5:1365. 3. Freeman G, <i>et al.</i> 2000. <i>J. Exp. Med.</i> 192:1027.
Gene ID	60533

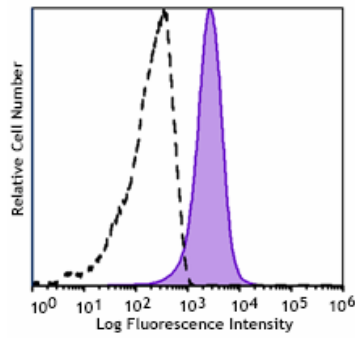
Related Protocols

- [Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

PE/Cyanine5 anti-mouse CD274 (B7-H1, PD-L1), PE/Fire™ 700 anti-mouse CD274 (B7-H1, PD-L1), PE/Dazzle™ 594 anti-mouse CD274 (B7-H1, PD-L1), Brilliant Violet 785™ anti-mouse CD274 (B7-H1, PD-L1), APC 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), Brilliant Violet 605™ anti-mouse CD274 (B7-H1, PD-L1), Spark PLUS B550™ anti-mouse CD274 (B7-H1, PD-L1), Spark PLUS UV395™ anti-mouse CD274 (B7-H1, PD-L1) Antibody, Spark PLUS B488™ anti-mouse CD274 (B7-H1, PD-L1), Spark PLUS YG581™ anti-mouse CD274 (B7-H1, PD-L1), GolnVivo™ Purified anti-mouse CD274 (B7-H1, PD-L1), Biotin anti-mouse CD274 (B7-H1, PD-L1), Brilliant Violet 650™ anti-mouse CD274 (B7-H1, PD-L1), PerCP/Cyanine5.5 anti-mouse CD274 (B7-H1, PD-L1), Spark PLUS B574™ anti-mouse CD274 (B7-H1, PD-L1) Antibody, Purified anti-mouse CD274 (B7-H1, PD-L1), PE anti-mouse CD274 (B7-H1, PD-L1), PE/Cyanine7 anti-mouse CD274 (B7-H1, PD-L1), Brilliant Violet 421™ 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)

Product Data



C57BL/6 mouse splenocytes were stained with anti-mouse CD274 (B7-H1, PD-L1) (clone 10F.9G2) Spark PLUS B574™ (filled histogram). Open histogram represents unstained cells.

For Research Use Only. Not for diagnostic or therapeutic use.

This product is supplied subject to the terms and conditions, including the limited license, located at www.biolegend.com/terms ("Terms") and may be used only as provided in the Terms. Without limiting the foregoing, BioLegend products may not be used for any Commercial Purpose as defined in the Terms, resold in any form, used in manufacturing, or reverse engineered, sequenced, or otherwise studied or used to learn its design or composition without express written approval of BioLegend. Regardless of the information given in this document, user is solely responsible for determining any license requirements necessary for user's intended use and assumes all risk and liability arising from use of the product. BioLegend is not responsible for patent infringement or any other risks or liabilities whatsoever resulting from the use of its products.

BioLegend, the BioLegend logo, and all other trademarks are property of BioLegend, Inc. or their respective owners, and all rights are reserved.

8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587