

Spark PLUS YG581™ anti-mouse CD274 (B7-H1, PD-L1) Antibody

Catalog# / Size	124359 / 25 µg 124360 / 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 YG581™ 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 ≤ 0.25 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application. * Spark PLUS YG581™ has a maximum excitation of 562 nm and a maximum emission of 581 nm.
Excitation Laser	Green Laser (532 nm)/Yellow-Green Laser (561 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](#)

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

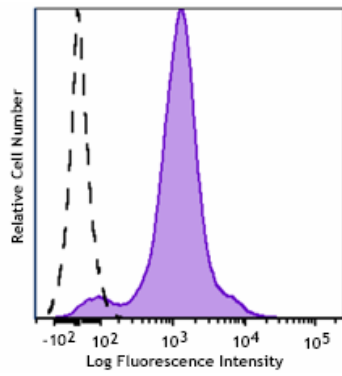
Related Protocols

- [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 YG581™ (filled histogram). Open histogram represent unstained cells.

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