

Ultra-LEAF™ Purified anti-mouse CD274 (B7-H1, PD-L1) Antibody

Catalog# / Size	124337 / 100 µg 124318 / 1 mg 124338 / 5 mg 124339 / 25 mg 124340 / 50 mg 124341 / 100 mg
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	0.2 µm filtered in phosphate-buffered solution, pH 7.2, containing no preservative. Endotoxin level is <0.01 EU/µg of the protein (<0.001 ng/µg of the protein) as determined by the LAL test.
Preparation	The Ultra-LEAF™ (Low Endotoxin, Azide-Free) antibody was purified by affinity chromatography.
Concentration	The antibody is bottled at the concentration indicated on the vial, typically between 2 mg/mL and 3 mg/mL. Older lots may have also been bottled at 1 mg/mL. To obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. This Ultra-LEAF™ solution contains no preservative; handle under aseptic conditions.
Application	FC - Quality tested Block - Reported in the literature, not verified in house
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 or 100 µL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.
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	1. Maier H, <i>et al.</i> 2007. <i>J. Immunol.</i> 178:2714. 2. Meng Q, <i>et al.</i> 2006. <i>Invest. Ophthalmol. Vis. Sci.</i> 47:4444. PubMed 3. Scarlett UK, <i>et al.</i> 2012. <i>J Exp Med.</i> 209:495. PubMed 4. Grabie N, <i>et al.</i> 2007. <i>Circulation</i> 116:2062. (IF, IHC)
(PubMed link indicates BioLegend citation)	

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](#)

Product Citations

1. Muthumani K, *et al.* 2012. *J Immunol.* 187:2932. [PubMed](#)
2. Dagkonaki A, *et al.* 2022. *Front Immunol.* 13:972003. [PubMed](#)
3. Bonamichi-Santos R, *et al.* 2021. *Front Immunol.* 12:655958. [PubMed](#)
4. Cripps J, *et al.* 2010. *Hepatology.* 52:1350. [PubMed](#)

RRID

AB_2783069 (BioLegend Cat. No. 124337)
 AB_2561484 (BioLegend Cat. No. 124318)
 AB_2800596 (BioLegend Cat. No. 124338)
 AB_2800597 (BioLegend Cat. No. 124339)
 AB_2800598 (BioLegend Cat. No. 124340)
 AB_2800599 (BioLegend Cat. No. 124341)

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	<ol style="list-style-type: none"> 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

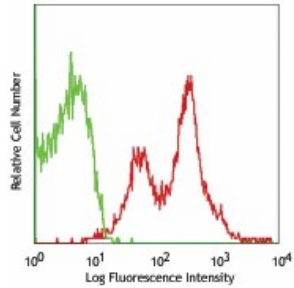
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

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



C57/B6 mouse splenocytes were stained with Ultra-LEAF™ purified anti-CD274 (clone 10F.9G2) (red line) or purified rat IgG2b, κ isotype control (green line), followed by biotinylated anti-rat IgG and Sav-PE.

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