

# Product Data Sheet

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

**Catalog # / Size:** 124303 / 50 µg  
 124304 / 500 µg  
 124309 / 1 mg

**Clone:** 10F.9G2

**Isotype:** Rat IgG2b, κ

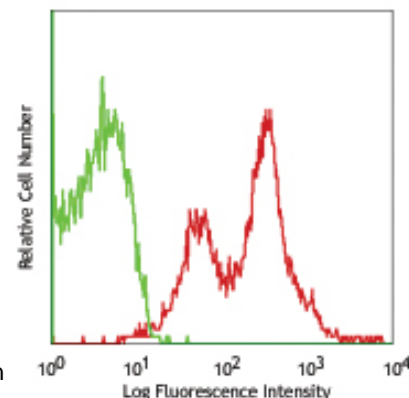
**Reactivity:** Mouse

**Preparation:** The LEAF™ (Low Endotoxin, Azide-Free) antibody was purified by affinity chromatography.

**Formulation:** 0.2 µm filtered in phosphate-buffered solution, pH 7.2, containing no preservative. Endotoxin level is <0.1 EU/µg of the protein (<0.01 ng/µg of the protein) as determined by the LAL test.

**Concentration:** 1.0 mg/ml

**Storage:** The antibody solution should be stored undiluted at 4°C. This LEAF™ solution contains no preservative; handle under aseptic conditions.



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

## Applications:

**Applications:** FC - Quality tested  
 IF, Block - Reported in the literature

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent 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.

**Application Notes:** Additional reported applications (for the relevant formats) include: immunofluorescence<sup>4</sup> and blocking<sup>6,7,8,9</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:**

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)
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

**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 lymphocyte proliferation and production of IL-10 and IFN-γ, in an IL-2-dependent and a PDCD1-independent manner. Its interaction with PDCD1 inhibits T-cell proliferation and cytokine production.

**Antigen References:**

1. Sharpe A, *et al.* 2007. *Nat. Immunol.* 8:239.
2. Dong H, *et al.* 1999. *Nat. Med.* 5:1365.
3. Freeman G, *et al.* 2000. *J. Exp. Med.* 192:1027.

**Related Products:** **Product**  
 Cell Staining Buffer  
 LEAF™ Purified Rat IgG2b, κ Isotype Ctrl

**Clone**  
 RTK4530

**Application**  
 FC, ICC, ICFC  
 FC, ICFC, WB, IP, ICC, IF,  
 IHC, FA



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