

Product Data Sheet

Biotin anti-mouse CD274 (B7-H1, PD-L1)

Catalog # / Size: 124305 / 50 µg
124306 / 500 µg

Clone: 10F.9G2

Isotype: Rat IgG2b, κ

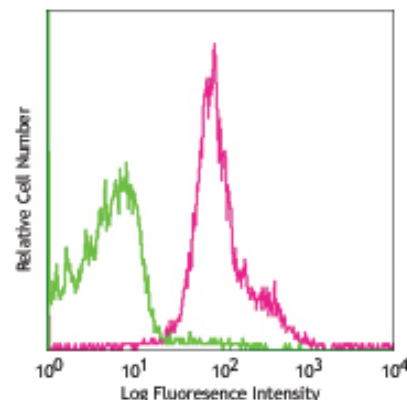
Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography, and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: 0.5 mg/ml

Storage: The antibody solution should be stored undiluted at 4°C. **Do not freeze.**



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

Applications:

Applications: FC - *Quality tested*
IF - *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 ≤0.25 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: immunofluorescence⁴ and blocking^{6,7,8,9}. 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. Gracie 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
Biotin Rat IgG2b, κ Isotype Ctrl
TruStain fcX™ (anti-mouse CD16/32)

Clone

RTK4530
93

Application

FC, ICC, ICFC
FC, ICFC
FC



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