SONY

Product Data Sheet

Pacific Blue™ anti-human CD154

Catalog # / Size: 2154100 / 100 µg

Clone: 24-31

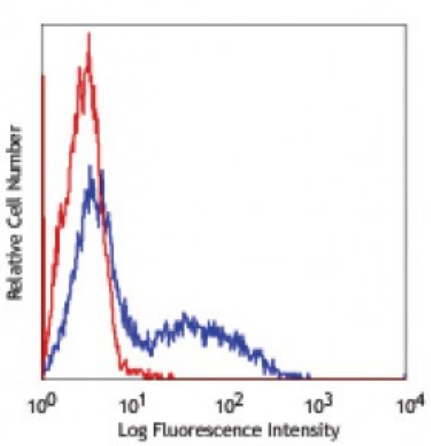
Isotype: Mouse IgG1, κ

Reactivity: Human

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

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

Concentration: 0.5



PMA+ionomycin-stimulated human PBMCs (6 hours) stained with 24-31 Pacific Blue™

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. The suggested use of this reagent is ≤ 1.0 microg per 10^6 cells in 100 microL volume or 100 microL of whole blood. It is highly recommended that the reagent be titrated for optimal performance for each application.

* Pacific Blue™ has a maximum emission of 455 nm when it is excited at 405 nm. Prior to using Pacific Blue™ conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

Application Notes: Additional reported applications (for the relevant formats) include: immunofluorescence microscopy[1,3] and blocking of T cell-dependent B cell differentiation[1,2,4,5]. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 310812). For highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 310828) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin <0.01 EU/microg).

Application References:

1. Brams P, *et al.* 2001. *Int. Immunopharmacol.* 1:277. (Block, IF)
2. Rushworth SA, *et al.* 2002. *Transplantation* 73:635. (Block)
3. Berner B, *et al.* 2000. *Ann. Rheum. Dis.* 59:190. (IF)
4. Nordström T, *et al.* 2006. *J. Leukocyte Biol.* 79:319. (Block)
5. Zhang AL, *et al.*2007. *Blood* doi:10.1182/blood-2007-02-076364. (Block) PubMed
6. Kuchen S, *et al.* 2007. *J. Immunol.* 179:5886.
7. Matus-Nicodermos R, *et al.* 2011. *J. Immunol.* 186:2164. PubMed
8. Schoenbrunn A, *et al.* 2012 *J. Immunol.* 189:5985 PubMed.

Description: CD154 (CD40 ligand) is also known as CD40L, gp39, TRAP and T-BAM. CD40 ligand is a 32-39 kD type II transmembrane glycoprotein. It is a member of the TNF superfamily and is expressed on activated T cells. It has been reported to be important for B cell costimulation following binding of its receptor, CD40. Additionally, binding of CD40L to CD40 on B cells promotes the secretion of

immunoglobulin and Ig isotype switching. CD40L is also involved in the regulation of cytokine production by T cells.

Antigen References:

1. Najafian N, *et al.* 2003. *Expert Opin. Biol. Ther.* 3:227.
2. Racke M, *et al.* 2002. *Expert Opin. Ther. Targets.* 6:275.
3. Ford G, *et al.* 1999. *J. Immunol.* 162:4037.