

## Pacific Blue™ anti-human CD154

**Catalog # / Size:** 310819 / 25 µg  
310820 / 100 µg

**Clone:** 24-31

**Isotype:** Mouse IgG1, κ

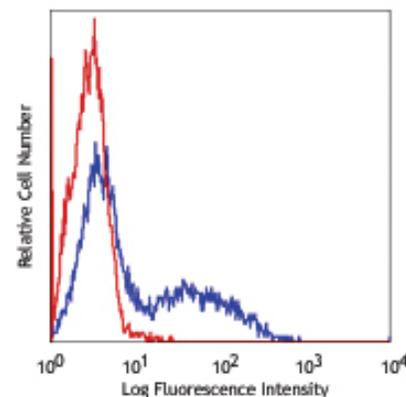
**Reactivity:** Human, **Cross-Reactivity:** Cynomolgus, Rhesus

**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 mg/ml

**Storage:** The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**



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

## Applications:

**Applications:** FC - Quality tested

**Recommended Usage:** This reagent is developed for immunofluorescent staining for flow cytometric analysis, the suggested use of this reagent is  $\leq 1.0$  µg per  $10^6$  cells in 100 µl volume or 100 µl 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.

\*\* Pacific Blue™ is a registered trademark of Molecular Probes, Inc. Pacific Blue™ dye antibody conjugates are sold under license from Molecular Probes, Inc. for research use only, except for use in combination with microarrays and high content screening, and are covered by pending and issued patents.

**Application Notes:** Additional reported applications (for the relevant formats) include: immunofluorescence microscopy<sup>1,3</sup> and blocking of T cell-dependent B cell differentiation<sup>1,2,4,5</sup>. 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/µg).

**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.

### Related Products:

**Product**  
Pacific Blue™ Mouse IgG1, κ Isotype Ctrl  
Cell Staining Buffer  
RBC Lysis Buffer (10X)  
Human TruStain FcX™ (Fc Receptor Blocking Solution)

**Clone**  
MOPC-21

**Application**  
FC, ICFC  
FC, ICC, ICFC  
FC, ICFC  
FC, ICC, ICFC



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