

**Pacific Blue™ anti-human CD54**

**Catalog # / Size:** 2213575 / 25 µg  
2213580 / 100 µg

**Clone:** HCD54

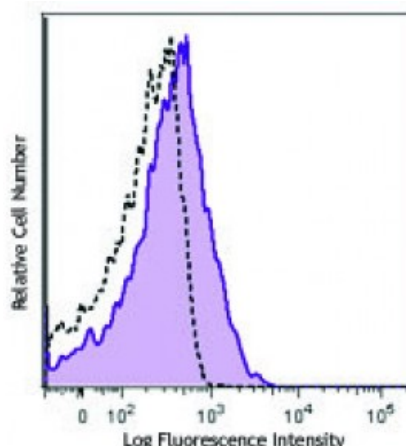
**Isotype:** Mouse IgG1, κ

**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



Human peripheral blood lymphocytes were stained with CD54 (clone HCD54) Pacific Blue™ (filled histogram) or mouse IgG1, κ Pacific Blue™ isotype control (open histogram).

**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 ≤ 2.0 microg per 10<sup>6</sup> 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: *in vitro* blocking of lymphocytes interaction<sup>1</sup>. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 322704).

**Application References:** 1. Evans HG, *et al.* 2009. *Proc. Natl. Acad. Sci. USA*. 106:6232. (Block) [PubMed](#)  
2. Kleine M, *et al.* 2014. *PLoS One*. 9:99713. [PubMed](#)

**Description:** CD54 is a 85-110 kD type I transmembrane protein also known as ICAM-1. It is expressed on activated endothelial cells, high endothelial venules, T and B cells, monocytes/macrophages, granulocytes, and dendritic cells. The expression of ICAM-1 on the cell surface is potentially upregulated by activation; a soluble form of ICAM-1 can be released from the cell surface. CD54 plays a role in cellular adhesion and is involved in inflammation and leukocyte extravasation. CD54 has also been shown to be the major cellular receptor for rhinovirus. ICAM-1 binds to CD11a/CD18 (LFA-1), CD11b/CD18 (Mac-1), CD11c/CD18 (p150, 95) as well as hyaluronan and fibrinogen.

**Antigen References:** 1. Voraberger G, *et al.* 1991 *J. Immunol.* 147:2777.  
2. Staunton DE, *et al.* 1988. *Cell* 52:925.

3. Greve JM, *et al.*. 1989. *Cell* 56:839.