

**Alexa Fluor® 488 anti-human CD54**

**Catalog # / Size:** 2213570 / 100 tests  
2213565 / 25 tests

**Clone:** HCD54

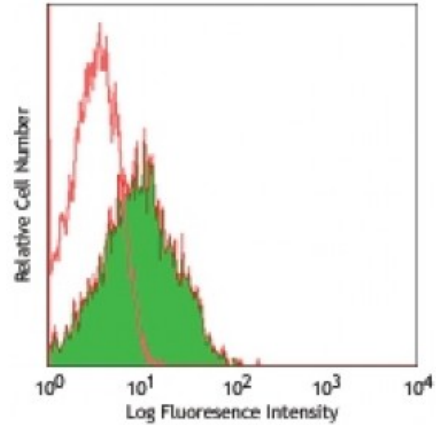
**Isotype:** Mouse IgG1, κ

**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 488 under optimal conditions.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

**Concentration:** Lot-specific



Human peripheral blood lymphocytes stained with HCD54 Alexa Fluor® 488

**Applications:**

**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 microL per 1 million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

\* Alexa Fluor® 488 has a maximum emission of 519 nm when it is excited at 488 nm.

**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 potently 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.