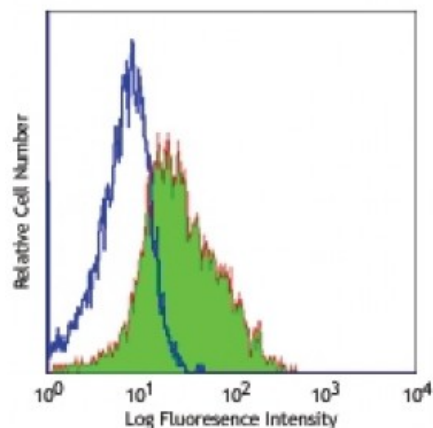


Alexa Fluor® 488 anti-mouse CD49e

Catalog # / Size: 1119050 / 100 µg
Clone: 5H10-27(MFR5)
Isotype: Rat IgG2a, κ
Immunogen: (C57BL/6 x A/J)F₁ mouse mast cell line
Reactivity: Mouse
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.
Concentration: 0.5



Balb/c mouse bone marrow stained with 5H10-27 Alexa Fluor® 488

Applications:

Applications: Immunofluorescence

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 ≤2.0 microg per million cells in 100 microL volume. 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: immunohistochemical staining^{6,7} of acetone-fixed frozen sections, blocking of cell-cell adhesion¹⁻⁵, inhibition of TNF-β₁ costimulated T cell proliferation³, and costimulation of T cell proliferation by cross-linked 5H10-27 antibody³. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 103808).

Application References:

1. Kinashi T, *et al.* 1994. *Blood Cells* 20:25. (Block)
2. Halvorson MJ, *et al.* 1995. *J. Immunol.* 155:4567. (Block)
3. Rich S, *et al.* 1996. *J. Immunol.* 157:2916. (Block Costim))
4. Uhlenkott CE, *et al.* 1996. *Clin. Exp. Metastasis* 14:125. (Block)
5. Schultz JF, *et al.* 1995. *J. Biol. Chem.* 270:11522. (Block)
6. Yang JT, *et al.* 1996. *Mol. Biol. Cell.* 7:1737. (IHC)
7. Cuklerman E, *et al.* 2001. *Science* 294:1708. (IHC)
8. Jia W, *et al.* 2005. *Blood* 106:3854. (FC)

Description: CD49e is a 135 kD protein, also known as α₅ integrin or VLA-5 α chain. It is a member of the integrin family, expressed on thymocytes, splenic B cells, activated T cells, and mast cells. CD49e associates with CD29 (integrin β₁ chain) to form the fibronectin receptor (VLA-5). CD49e plays a critical role in both adhesion and T cell costimulation. The primary ligand for CD49e/CD29 (VLA-5) is fibronectin. The 5H10-27(MFR5) antibody has been shown to block CD49e mediated interactions and promote the *in vitro* stimulation of CD8⁺ T cells.

- Antigen** 1. Barclay AN, *et al.* 1997. The Leukocyte Antigen FactsBook Academic Press.
- References:** 2. Kinashi T, *et al.* 1994 *Blood Cells* 20:25.
3. Hemler ME. 1990. *Annu. Rev. Immunol.* 8:365.