

PE anti-mouse/rat CD49e

Catalog # / Size: 1119530 / 200 µg
1119525 / 50 µg

Clone: HMα5-1

Isotype: Hamster IgG

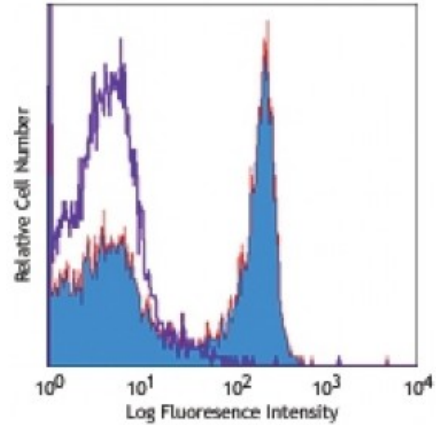
Immunogen: Affinity-purified mouse VLA-5 protein (α₅β₁, CD49e/CD29)

Reactivity: Mouse,Rat

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

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

Concentration: 0.2



C57BL/6 mouse bone marrow cells stained with HMα5-1 PE

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 ≤ 0.25 microg per 10⁶ cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

Application Notes: The HMα5-1 antibody has been shown to partially block CD49e mediated interactions. It has also been observed that plate-bound HMα5-1 antibody enhances IgE mediated degranulation and that *in vivo* injection of HMα5-1 antibody, in combination with anti-CD49d and anti-CD61 antibodies, blocks passive cutaneous anaphylaxis.

Additional reported applications (for the relevant formats) include: immunoprecipitation¹, *in vivo* inhibition of fibronectin receptor (VLA-5) functions and *in vitro* blocking of CD49e mediated interactions^{1,2}. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays ([Contact our custom solutions team](#)).

- Application References:**
1. Yasuda M, *et al.* 1995. *Int. Immunol.* 7:251. (IP, Block)
 2. Noto K, *et al.* 1995. *Int. Immunol.* 7:835. (Block)
 3. Wang C, *et al.* 2009. *Biomaterials.* 30:2259. [PubMed](#)
 4. Lin JS, *et al.* 2010. *J. Leukoc. Biol.* 88:95. [PubMed](#)

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.

- Antigen References:**
1. Barclay AN, *et al.* 1997. *The Leukocyte Antigen FactsBook* Academic Press.
 2. Kinashi T, *et al.* 1994 *Blood Cells* 20:25.

3. Hemler ME. 1990. *Annu. Rev. Immunol.* 8:365.