

**PE anti-mouse / rat CD29**

**Catalog # / Size:** 1111035 / 50 µg  
1111040 / 200 µg

**Clone:** HMβ1-1

**Isotype:** Hamster IgG

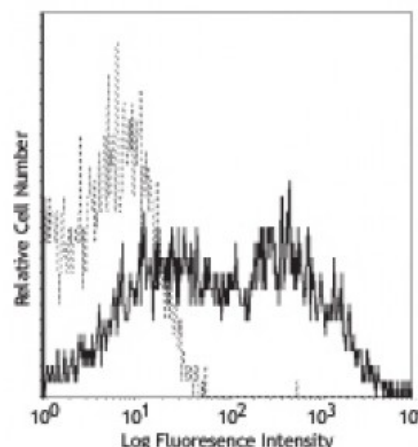
**Immunogen:** Purified mouse VLA-4 (α<sub>4</sub>β<sub>1</sub>, CD49d/CD29)

**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



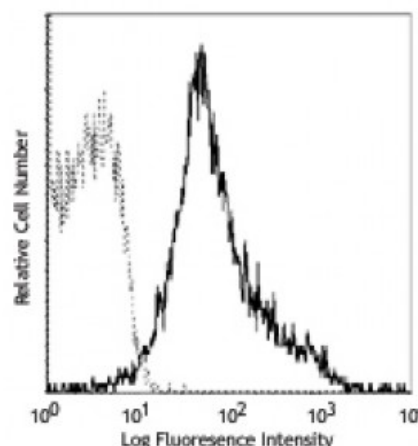
Lou rat bone marrow cells stained with HMβ1-1 biotin, then detected with Sav-PE

**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 10<sup>6</sup> cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

**Application Notes:** Additional reported applications (for the relevant formats) include: immunoprecipitation<sup>1</sup>, immunohistochemistry<sup>4</sup> of acetone-fixed frozen sections, *in vitro* blocking of the adhesion of mouse tumor cell lines to extracellular matrix proteins and *in vitro* inhibition of T cell proliferative responses<sup>1</sup>, and *in vivo* inhibition of neutrophil migration<sup>2</sup>. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 102210).



C57BL/6 mouse splenocytes stained with HMβ1-1 PE

- Application References:**
1. Noto K, *et al.* 1995. *Int. Immunol.* 7:835.
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  5. Lawson BR, *et al.* 2007. *J. Immunol.* 178:5366.
  6. Eisenmann KM, *et al.* 2007. *J. Biol. Chem.* doi:10.1074/jbc.M703243200. [PubMed](#)
  7. Hayashi Y, *et al.* 2008. *Am J Physiol Gastrointest Liver Physiol.* 294:G778. [PubMed](#)

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  9. Hayashi Y, *et al.* 2008. *J Pharmacol Exp Ther.* 326:523. [PubMed](#)
  10. Carlson TR, *et al.* 2008. *Development.* 135:2193. [PubMed](#)
  11. Sangaletti S, *et al.* 2008. *Cancer Res.* 68:9050. (Block) [PubMed](#)
  12. Zuba-Surma EK, *et al.* 2008. *J Mol Cell Cardiol.* 44:865. [PubMed](#)
  13. Zheng Z, *et al.* 2012. *Biochem Biophys Res Commun.* 428:309. [PubMed](#)
  14. Diaferia GR, *et al.* 2013. *Development.* 140:3360. [PubMed](#)
  15. Liang CZ, *et al.* 2013. *Acta Biomater.* 9:9423. [PubMed](#)
  16. Simonetti G, *et al.* 2013. *J Exp Med.* 210:2287. [PubMed](#)
  17. Weckbach LT, *et al.* 2014. *Blood.* 123:1887. [PubMed](#)
  18. Toda S, *et al.* 2014. *Blood.* 123:3963. [PubMed](#)
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**Description:** CD29 is a 130 kD protein, also known as integrin  $\beta_1$ , VLA- $\beta$  chain, or GPIIa. It is a member of the integrin family, expressed broadly on leukocytes, endothelial cells, smooth muscle, and epithelial cells. In association with CD49a-f, CD29 forms the VLA-1 through VLA-6 complexes, respectively. It plays an important role in cell-cell or cell-matrix interaction. The HM $\beta$ 1-1 antibody reacts with both mouse and rat CD29. It is able to block cell adhesion and inhibit T cell proliferation.

**Antigen**  
**References:** 1. Noto K, *et al.* 1995. *Int. Immunol.* 7:835.