

**Biotin anti-mouse CD49b**

**Catalog # / Size:** 1117605 / 50 µg  
1117610 / 500 µg

**Clone:** HMα2

**Isotype:** Hamster IgG

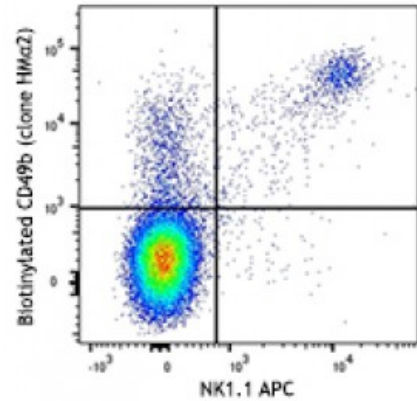
**Immunogen:** Mouse colon carcinoma cell line Colon26

**Reactivity:** Mouse

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

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

**Concentration:** Lot-specific



C57BL/6 splenocytes were stained with NK1.1 APC and biotinylated CD49b (clone HMα2) (top), or biotinylated Armenian Hamster IgG isotype control (bottom), followed by SAV-PE.

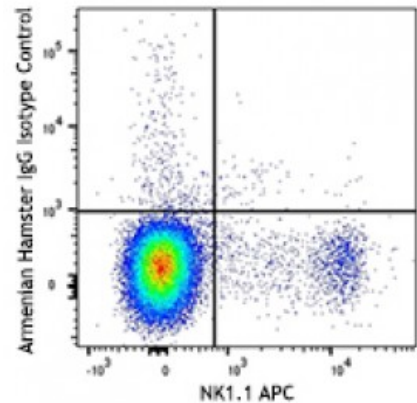
**Applications:**

**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 ≤0.125 microg per million 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>, immunofluorescence on frozen sections<sup>4</sup>, and blocking of cell adhesion<sup>1-3</sup>. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays.

- Application References:**
1. Miyake S, *et al.* 1994. *Eur. J. Immunol.* 24:2000. (Block, IP)
  2. Noto K, *et al.* 1995. *Int. Immunol.* 7:835. (Block)
  3. Arase H, *et al.* 2001. *J. Immunol.* 167:1141. (Block)
  4. Zhang Z, *et al.* 2008. *Blood* 111:1980. (IF)



**Description:** CD49b is a 150 kD glycoprotein, also known as α<sub>2</sub> integrin, VLA-2 α chain, Integrin α<sub>2</sub> chain, and HMα2. It is a member of the integrin family, expressed on NK cells, a subset of splenic CD4<sup>+</sup> T cells, NK-T cells, intestinal intraepithelial and lamina propria lymphocytes, epithelial cells, and platelets. By associating with CD29

(integrin  $\beta_1$  subunit), CD49b forms the VLA-2 (integrin  $\alpha_2\beta_1$ ) complex. It plays a critical role in both adhesion and lymphocyte activation. The primary ligands for CD49b are collagen, laminin, and fibronectin. The HM $\alpha$ 2 antibody has been shown to be useful for partially blocking CD49b mediated interactions with collagen. Additionally, this antibody blocks staining of splenic NK cells by the monoclonal antibody DX5.

**Antigen  
References:**

1. Barclay AN, *et al.* 1997. The Leukocyte Antigen FactsBook Academic Press.
2. Sasaki K, *et al.* 2003. *Int. Immunol.* 15:701.
3. Inoue O, *et al.* 2003. *J. Cell Biol.* 160:769.