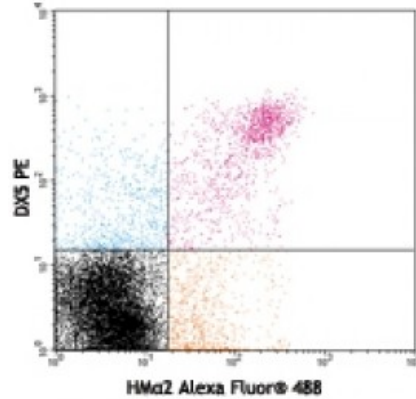


**Alexa Fluor® 488 anti-mouse CD49b**

**Catalog # / Size:** 1117550 / 25 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 Alexa Fluor® 488 under optimal conditions.  
**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.  
**Concentration:** 0.5



C57BL/6 mouse splenocytes stained with HMα2 Alexa Fluor® 488 and DX5 PE

**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 ≤ 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.

\* 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: immunoprecipitation<sup>1</sup>, immunofluorescence<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 β<sub>1</sub> subunit), CD49b forms the VLA-2 (integrin α<sub>2</sub>β<sub>1</sub>) complex. It plays a critical role in both adhesion and lymphocyte activation. The primary ligands for CD49b are collagen, laminin, and fibronectin. The HMα2 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.