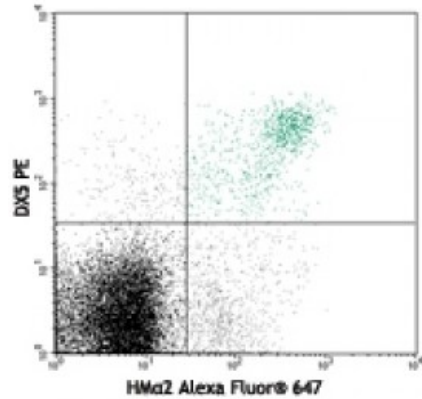


Alexa Fluor® 647 anti-mouse CD49b

Catalog # / Size: 1117555 / 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® 647 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® 647 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 10⁶ cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633nm / 635nm.

Application Notes: Additional reported applications (for the relevant formats) include: immunoprecipitation¹, immunofluorescence on frozen sections⁴, and blocking of cell adhesion¹⁻³. 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)
 5. Schwartz C, *et al.* 2014. *J Immunol.* 193:3590. [PubMed](#)
 6. Schwartz C, *et al.* 2014. *PNAS.* 111:5169. [PubMed](#)

Description: CD49b is a 150 kD glycoprotein, also known as α₂ integrin, VLA-2 α chain, Integrin α₂ chain, and HMα2. It is a member of the integrin family, expressed on NK cells, a subset of splenic CD4⁺ T cells, NK-T cells, intestinal intraepithelial and lamina propria lymphocytes, epithelial cells, and platelets. By associating with CD29 (integrin β₁ subunit), CD49b forms the VLA-2 (integrin α₂β₁) 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.