

FITC anti-mouse CD49b

Catalog # / Size: 1117515 / 50 µg
1117520 / 500 µg

Clone: HMα2

Isotype: Hamster IgG

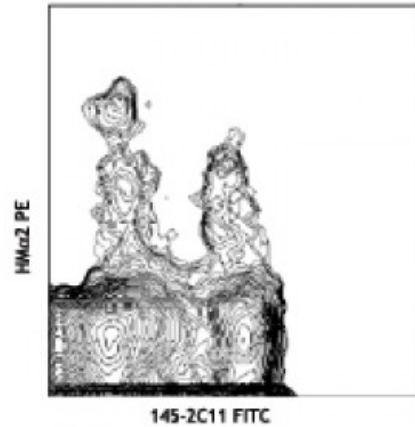
Immunogen: Mouse colon carcinoma cell line
Colon26

Reactivity: Mouse

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

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

Concentration: 0.5



C57BL/6 splenocytes stained with HMα2 PE and 145-2C11 FITC

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 10^6 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: 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)

Description: CD49b is a 150 kD glycoprotein, also known as α_2 integrin, VLA-2 α chain, Integrin α_2 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 β_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 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.