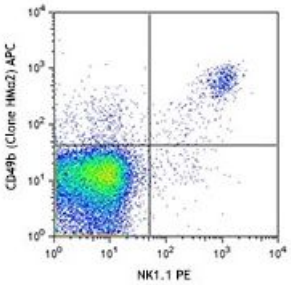
SONY

Product Data Sheet

APC anti-mouse CD49b

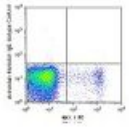
Catalog # / Size:	1117575 / 25 µg 1117580 / 100 µg
Clone:	HMα2
Isotype:	Hamster IgG
Immunogen:	Mouse colon carcinoma cell line Colon26
Reactivity:	Mouse
Preparation:	The antibody was purified by affinity chromatography and conjugated with APC under optimal conditions.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Workshop Number:	750 under optimal conditions.
Concentration:	0.2



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

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 µg per million cells in 100 µl 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 adhesion[1-3]. 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)

For research use only. Not for diagnostic use. Not for resale. Sony Biotechnology Inc. will not be held responsible for patent infringement or other violations that may occur with the use of our products.

Sony Biotechnology Inc. 1730 North First Street, San Jose, CA 95112 www.sonybiotechnology.com

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.

For research use only. Not for diagnostic use. Not for resale. Sony Biotechnology Inc. will not be held responsible for patent infringement or other violations that may occur with the use of our products.