PE anti-mouse/rat CD29 Antibody

Catalog# / Size	102207 / 50 µg 102208 / 200 µg
Clone	HMβ1-1
Other Names	integrin β1, VLA-β chain, β1 integrin, GPIIa, ITGB1
Isotype	Armenian Hamster IgG
Description	CD29 is a 130 kD protein, also known as integrin β_1, VLA-β chain, or GPIIa. It is a member of the integrin family, expressed broadly on leukocytes, endothelial cells, smooth muscle, and epithelial cells. In association with CD49a-f, CD29 forms the VLA-1 through VLA-6 complexes, respectively. It plays an important role in cell-cell or cell-matrix interaction. The HMß1-1 antibody reacts with both mouse and rat CD29. It is able to block cell adhesion and inhibit T cell proliferation.

Product Details

Reactivity	Mouse, Rat
Antibody Type	Monoclonal
Host Species	Armenian Hamster
Immunogen	Purified mouse VLA-4 ($\alpha_4\beta_1$, CD49d/CD29)
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions.
Concentration	0.2 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. **Do not freeze.**
Application	FC - Quality tested
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 µg per 10^6 cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	Additional reported applications (for the relevant formats) include: immunoprecipitation[1], immunohistochemistry[4] of acetone-fixed frozen sections, *in vitro* blocking of the adhesion of mouse tumor cell lines to extracellular matrix proteins and *in vitro* inhibition of T cell proliferative responses[1], and *in vivo* inhibition of neutrophil migration[2]. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 102210).

Application References

(PubMed link indicates BioLegend citation)

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2. Ridger VC, et al. 2001. J. Immunol. 166:3484.
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Product Citations

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2. Kurzrock E, et al. 2008. Am J Physiol Renal Physiol. 294:F1415. PubMed
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6. Diaferia G, et al. 2013. Development. 140:3360. PubMed
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9. Zheng Z, et al. 2012. Biochem Biophys Res Commun. 428:309. PubMed
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RRID

AB_312884 (BioLegend Cat. No. 102207)
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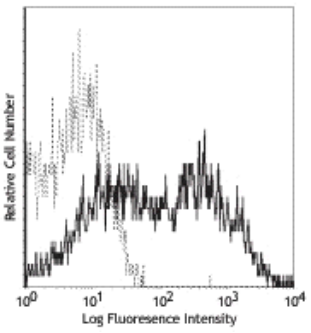
Antigen Details

Structure	Integrin family, 130 kD
Distribution	Leukocytes, endothelial cells, smooth muscle, epithelial cells
Function	Adhesion
Ligand/Receptor	Extracellular matrix
Cell Type	Embryonic Stem Cells, Endothelial cells, Epithelial cells, Leukocytes, Mesenchymal Stem Cells, Tregs
Biology Area	Cell Adhesion, Cell Biology, Immunology, Innate Immunity, Stem Cells
Molecular Family	Adhesion Molecules, CD Molecules
Antigen References	1. Noto K, et al. 1995. Int. Immunol. 7:835. 2. Springer TA. 1990. Nature 346:425.
Gene ID	16412 24511

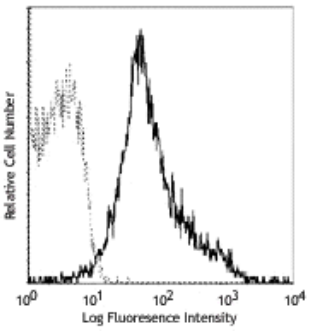
Related Protocols

Cell Surface Flow Cytometry Staining Protocol

Product Data



Lou rat bone marrow cells stained with HMβ1-1 biotin, then detected with Sav-PE



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