

CD29 (Integrin beta 1) Monoclonal Antibody (eBioHMb1-1 (HMb1-1)), FITC, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse, Rat
Published Species	Rat, Mouse, Human
Host/Isotype	Armenian hamster / IgG
Recommended Isotype Control	Armenian Hamster IgG Isotype Control (eBio299Arm), FITC, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	eBioHMb1-1 (HMb1-1)
Conjugate	FITC
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.1% gelatin
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2572449

Applications	Tested Dilution	Publications
Immunocytochemistry (ICC/IF)	-	3 Publications
Flow Cytometry (Flow)	1 µg/test	37 Publications

Product Specific Information

Description: The eBioHMb1-1 monoclonal antibody reacts with mouse and rat CD29 (integrin beta 1), a 110-120 kDa member of the beta integrin family expressed by leukocytes, endothelial, smooth muscle and epithelial cells. CD29 binds non-covalently with the alpha integrins CD49a-f to form the VLA-1 through VLA-6 complexes, as well as with CD51. These alpha-beta integrin heterodimers are capable of mediating a variety of cellular responses including adhesion, trafficking, proliferation and differentiation. All integrins which include CD29 bind to extracellular matrix proteins including collagen, laminin, fibronectin and vitronectin, whereas some CD29-containing integrins can also interact with cellular receptors such as VCAM-1 and MadCAM-1.

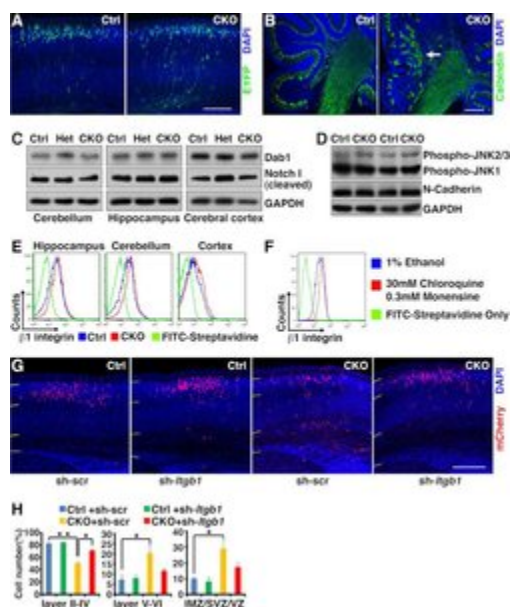
Applications Reported: This eBioHMb1-1 (HMb1-1) antibody has been reported for use in flow cytometric analysis.

Applications Tested: This eBioHMb1-1 (HMb1-1) antibody has been tested by flow cytometric analysis of mouse bone marrow cells. This can be used at less than or equal to 1 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Excitation: 488 nm; Emission: 520 nm; Laser: Blue Laser.

Filtration: 0.2 µm post-manufacturing filtered.

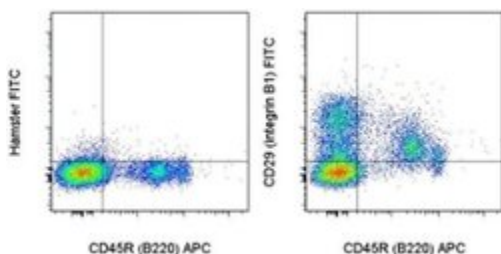
Advanced Verification Data



CD29 (Integrin beta 1) Antibody (11-0291-82)

FIGURE 6. Vps18 deficiency-mediated impairment of neuronal migration and up-regulation of beta1 integrin on cell surfaces. A, representative images of E19 cerebral cortices of the indicated mice electroporated at E14 with plasmid p EYFP. A fraction of EYFP-positive cortical neurons was abnormally located in the intermediate zone and subventricular zone in the Vps18 CKO cerebral cortex. B, sagittal cryosections of cerebellums from the indicated mice were stained with anti-calbindin. An arrow indicates abnormal localized Purkinje cells under inner granule cell layer in the Vps18 CKO cerebellum. C and D, Western blot analysis reveals no change in the protein levels of Dab1, cleaved Notch I, N-cadherin, and activated JNKs in the indicated regions of E17 CKO mouse brains when compared with the controls. Het : Vps18 +/F ; Nestin- Cre. Blots shown are representatives of three experiments with similar results. E, The FACS profiles showing an increase of beta1 integrin expression on the surface of the E16.5 Vps18 CKO brain cells as indicated. F, the FACS profiles demonstrating the accumulation of beta1 integrin on the surface of NIH3T3 cells treated with the lysosomal inhibitors, chloroquine and monensin. G and H, knockdown of beta1 integrin partially rescued the migration defect in the Vps18 CKO brain. Representative images in G are from the section of E19 Vps18 CKO or Ctrl cerebral cortices electroporated with the plasmids co-expressing mCherry and indicated shRNA. The graphs Cell treatment validation info.

Product Images For CD29 (Integrin beta 1) Monoclonal Antibody (eBioHMb1-1 (HMb1-1)), FITC, eBioscience™



CD29 (Integrin beta 1) Antibody (11-0291-82) in Flow

Staining of C57Bl/6 bone marrow cells with Anti-Human/Mouse CD45R (B220) APC (Product # 17-0452-82) and 0.5 µg of Armenian Hamster IgG Isotype Control FITC (Product # 11-4888-81) (left) or 0.5 µg of Anti-Mouse/Rat CD29 (Integrin beta 1) FITC (right). Cells in the small scatter population were used for analysis.

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Immunocytochemistry (3)

Molecular biology of the cell

An IFT20 mechanotraficking axis is required for integrin recycling, focal adhesion dynamics, and polarized cell migration.

"11-0291 was used in Immunocytochemistry-immunofluorescence to examine the role of intraflagellar transport (IFT) 20 (Ift20) during polarized migration of epidermal cells."

Authors: Su S,Begum S,Ezratty EJ

Species
Mouse

Dilution
1:100

Year
2020

Breast cancer research : BCR

Integrin-Rac signalling for mammary epithelial stem cell self-renewal.

"Published figure using CD29 (Integrin beta 1) monoclonal antibody (Product # 11-0291-82) in Flow Cytometry"

Authors: Olabi S,Ucar A,Brennan K,Streuli CH

Species
Not Applicable

Dilution
Not Cited

Year
2018

[View more ICC/IF references on thermofisher.com](#)

Flow Cytometry (37)

Frontiers in immunology

Central Nervous System Barriers Impact Distribution and Expression of iNOS and Arginase-1 in Infiltrating Macrophages During Neuroinflammation.

"Published figure using CD29 (Integrin beta 1) monoclonal antibody (Product # 11-0291-82) in Flow Cytometry"

Authors: Ivan DC,Walthert S,Locatelli G

Species
Not Applicable

Dilution
Not Cited

Year
2021

International journal of molecular sciences

Therapeutic Potential of Mesenchymal Stem Cells in a Pre-Clinical Model of Diabetic Kidney Disease and Obesity.

"Published figure using CD29 (Integrin beta 1) monoclonal antibody (Product # 11-0291-82) in Flow Cytometry"

Authors: Sávio-Silva C,Soinski-Sousa PE,Simplicio-Filho A,Bastos RMC,Beyerstedt S,Rangel ÉB

Species
Not Applicable

Dilution
Not Cited

Year
2021

[View more Flow references on thermofisher.com](#)

More applications with references on thermofisher.com

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