

CD29 (Integrin beta 1) Monoclonal Antibody (eBioHMB1-1 (HMB1-1)), Super Bright™ 702, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse, Rat
Host/Isotype	Armenian hamster / IgG
Recommended Isotype Control	Armenian Hamster IgG Isotype Control (eBio299Arm), Super Bright™ 702, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	eBioHMB1-1 (HMB1-1)
Conjugate	Super Bright™ 702
Excitation/Emission Max	413/702 nm
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2762820

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	-	1 Publication
Immunocytochemistry (ICC/IF)	-	2 Publications
Flow Cytometry (Flow)	0.5 µg/test	28 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 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This eBioHMB1-1 antibody has been tested by flow cytometric analysis of mouse bone marrow cells. This may be used at less than or equal to 0.5 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.

Super Bright 702 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 702 nm. We recommend using a 710/50 bandpass filter. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer for more information.

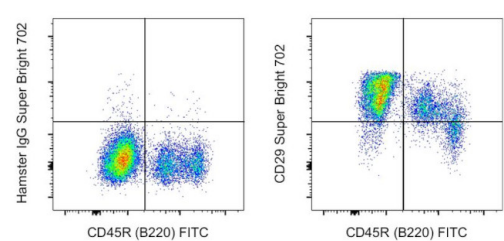
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222-49) (100 μ L of cell sample + 100 μ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333-57) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 405 nm; Emission: 702 nm; Laser: Violet Laser

Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

Product Images For CD29 (Integrin beta 1) Monoclonal Antibody (eBioHMb1-1 (HMb1-1)), Super Bright™ 702, eBioscience™



CD29 (Integrin beta 1) Antibody (67-0291-82) in Flow
C57BL/6 mouse bone marrow cells were stained with CD45R (B220) Monoclonal Antibody, FITC (Product # 11-0452-82) and 0.25 μ g of Armenian Hamster IgG Isotype Control, Super Bright 702 (Product # 67-4888-82) (left) or 0.25 μ g of CD29 (Integrin Beta 1) Monoclonal Antibody, Super Bright 702 (right). Cells in the small scatter population gate were used for analysis. Viable cells were determined using Fixable Viability Dye eFluor 780 (Product # 65-0865-18).

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Immunohistochemistry (1)

NPJ Regenerative medicine	Year 2021
Differential activation of Ca²⁺ influx channels modulate stem cell potency, their proliferation/viability and tissue regeneration.	
"Published figure using CD29 (Integrin beta 1) monoclonal antibody (Product # 67-0291-82) in Immunohistochemistry"	
Authors: Ahamad N,Sun Y,Nascimento Da Conceicao V,Xavier Paul Ezhilan CRD,Natarajan M,Singh BB	

Immunocytochemistry (2)

Frontiers in bioengineering and biotechnology	Year 2022
Thermo-sensitive hydrogel combined with SHH expressed RMSCs for rat spinal cord regeneration.	
"Published figure using CD29 (Integrin beta 1) monoclonal antibody (Product # 67-0291-82) in Immunocytochemistry"	
Authors: Gu J,Gao B,Zafar H,Chu B,Feng X,Ni Y,Xu L,Bao R	

Molecular biology of the cell	Year 2020
An IFT20 mechanotraficking axis is required for integrin recycling, focal adhesion dynamics, and polarized cell migration.	
"Published figure using CD29 (Integrin beta 1) monoclonal antibody (Product # 67-0291-82) in Immunocytochemistry"	
Authors: Su S,Begum S,Ezratty EJ	

Flow Cytometry (28)

FEBS open bio	Year 2022
A comparative study of mouse bone marrow mesenchymal stem cells isolated using three easy-to-perform approaches.	
"Published figure using CD29 (Integrin beta 1) monoclonal antibody (Product # 67-0291-82) in Flow Cytometry"	
Authors: Lu Y,Han Y,Zhou L,Shi G,Bai L,Wang K,Qin C	

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More applications with references on thermofisher.com

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