

CD29 (Integrin beta 1) Monoclonal Antibody (eBioHMB1-1 (HMB1-1)), Super Bright™ 600, 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™ 600, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	eBioHMB1-1 (HMB1-1)
Conjugate	Super Bright™ 600
Excitation/Emission Max	414/601 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_2762818

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 600 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 600 nm. We recommend using a 610/20 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.

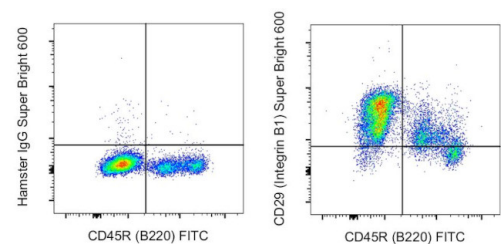
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222-49) (100 µL of cell sample + 100 µL 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: 600 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™ 600, eBioscience™



CD29 (Integrin beta 1) Antibody (63-0291-82) in Flow
C57BL/6 mouse bone marrow cells were stained with CD45R (B220) Monoclonal Antibody, FITC (Product # 11-0452-82) and 0.25 µg of Armenian Hamster IgG Isotype Control, Super Bright 600 (Product # 63-4888-82) (left) or 0.25 µg of CD29 (Integrin Beta 1) Monoclonal Antibody, Super Bright 600 (right). Cells in the small scatter population gate were used for analysis. Viability was determined by Fixable Viability Dye eFluor 780 (Product # 65-0865-18).

[View more figures on thermofisher.com](https://www.thermofisher.com)

Immunohistochemistry (1)

NPJ Regenerative medicine

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 # 63-0291-82) in Immunohistochemistry"

Authors: Ahamad N,Sun Y,Nascimento Da Conceicao V,Xavier Paul Ezhilan CRD,Natarajan M,Singh BB

Year
2021

Immunocytochemistry (2)

Frontiers in bioengineering and biotechnology

Thermo-sensitive hydrogel combined with SHH expressed RMSCs for rat spinal cord regeneration.

"Published figure using CD29 (Integrin beta 1) monoclonal antibody (Product # 63-0291-82) in Immunocytochemistry"

Authors: Gu J,Gao B,Zafar H,Chu B,Feng X,Ni Y,Xu L,Bao R

Year
2022

Molecular biology of the cell

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 # 63-0291-82) in Immunocytochemistry"

Authors: Su S,Begum S,Ezratty EJ

Year
2020

Flow Cytometry (28)

FEBS open bio

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 # 63-0291-82) in Flow Cytometry"

Authors: Lu Y,Han Y,Zhou L,Shi G,Bai L,Wang K,Qin C

Year
2022

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

More applications with references on thermofisher.com

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization. Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.