

# CD49d (Integrin alpha 4) Monoclonal Antibody (9F10), Super Bright™ 600, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human
Published Species	Human
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), Super Bright™ 600, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	9F10
Conjugate	Super Bright™ 600
Excitation/Emission Max	414/601 nm
Form	Liquid
Concentration	5 µL/Test
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_2734998

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.25 µg)/test	2 Publications

## Product Specific Information

**Description:** The 9F10 monoclonal antibody reacts with human CD49d, the 150 kDa integrin alpha4 subunit. The complex of CD49d non-covalently associated with integrin beta1 (CD29), also known as VLA-4, is a receptor for fibronectin and VCAM-1 (CD106). This complex is expressed by thymocytes, peripheral lymphocytes, monocytes and eosinophils. CD49d also associates with integrin beta7 and binds to the Mucosal Addressin Cell-Adhesion Molecule-1 (MadCAM-1).

**Applications Reported:** This 9F10 antibody has been reported for use in flow cytometric analysis.

**Applications Tested:** This 9F10 antibody has been pre-diluted and tested by flow cytometric analysis of normal human peripheral blood cells. This may be used at 5 µL (0.25 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 10<sup>5</sup> to 10<sup>8</sup> cells/test.

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.

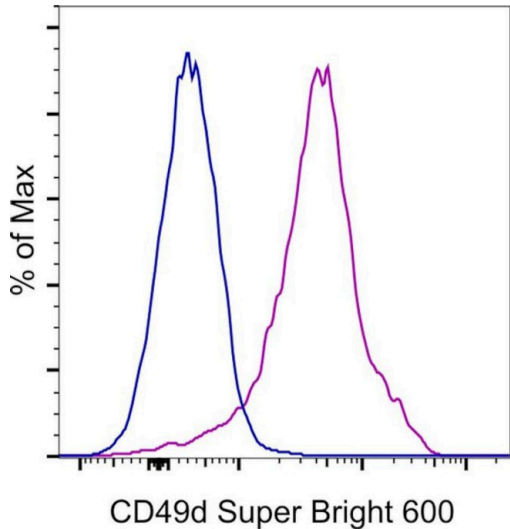
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100 µL of cell sample + 100 µL of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333) 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 CD49d (Integrin alpha 4) Monoclonal Antibody (9F10), Super Bright™ 600, eBioscience™



**CD49d (Integrin alpha 4) Antibody (63-0499-42) in Flow**  
Staining of normal human peripheral blood cells with Mouse IgG1 kappa Isotype Control Super Bright 600 (Product # 63-4714-82) (blue histogram) or CD49d (Integrin alpha 4) Monoclonal Antibody, Super Bright 600 (purple histogram). Cells in the lymphocyte gate were used for analysis.

2 References

Flow Cytometry (2)

<p>Stem cell research &amp; therapy</p> <p><b>Mesenchymal stem cell aggregation mediated by integrin 4/VCAM-1 after intrathecal transplantation in MCAO rats.</b></p> <p>"Published figure using CD49d (Integrin alpha 4) monoclonal antibody (Product # 63-0499-42) in Flow Cytometry"</p> <p>Authors: Ran Y,Dong Y,Li Y,Xie J,Zeng S,Liang C,Dai W,Tang W,Wu Y,Yu S</p>	<p>Year</p> <p>2022</p>
<p>Communications biology</p> <p><b>Identification of potential chemical compounds enhancing generation of enucleated cells from immortalized human erythroid cell lines.</b></p> <p>"63-0499-42 was used in Flow Cytometry to provide a potential solution for the generation of mature cells from erythroid cell lines, contributing to the future realization of the use of immortalized cell lines for transfusion therapies."</p> <p>Authors: Soboleva S,Kurita R,Ek F,Åkerstrand H,Silvério-Alves R,Olsson R,Nakamura Y,Miharada K</p>	<p>Year</p> <p>2021</p> <p>Species</p> <p>Human</p>

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.