

Anti-Human/Mouse Integrin beta 7 eFluor® 650NC

Catalog Number: 95-5867

Also Known As: Integrin b7, Integrin beta7 ITGB7

RUO: For Research Use Only. Not for use in diagnostic procedures.



Description

The FIB504 monoclonal antibody reacts with human and mouse integrin β 7. Integrin β 7 is a 130 kD glycoprotein which associates with integrin α 4 (CD49d) to form the α 4 β 7 integrin LPAM-1, expressed on intraepithelial lymphocytes. It also associates with α E (CD103) to form the α E β 7 integrin HML-1, expressed on T cells adjacent to mucosal epithelium and intraepithelial lymphocytes. Main ligands for integrin α 4 β 7 include VCAM-1 (CD106), MAdCAM-1 and fibronectin, while the main ligand of integrin α E β 7 is E-cadherin (CD324). Integrin β 7 plays an important role in the adhesion of leukocytes to endothelial cells promoting the transmigration of leukocytes to extravascular spaces during the inflammatory response. The FIB504 antibody has been reported to have blocking activity.

Applications Reported

This FIB504 antibody has been reported for use in flow cytometric analysis.

Applications Tested

This FIB504 antibody has been pre-titrated and tested by flow cytometric analysis of normal human peripheral blood cells). This can be used at 5 μ L per test. A test is defined as the amount (μ g) of antibody that will stain a cell sample in a final volume of 100 μ L. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test.

The isotype control eFluor® 650NC rat IgG2a (cat. 95-4321) should be used at 5 ul/test.

Laser/Filter Recommendation: When using eFluor 650NC, we recommend excitation with the 405nm violet laser with an appropriate filter set, such as the 630 LP dichroic mirror with the 660/40 bandpass filter. The eFluor 650NC can be minimally excited off of the 633 nm laser, and because its peak emission is 650nm, it will require some compensation out of the APC detector.

Fixation Recommendation: When fixing samples that have been stained with nanocrystal reagents, we recommend keeping the total volume at approximately 200 uL. (100 uL cells + 100 uL IC Fixation Buffer (cat. 00-8222)) and the exposure time at 30-60 minutes to preserve the optimal fluorescent signal from the nanocrystal reagent.

For answers about fixation and other questions, please refer to Nanocrystal Frequently Asked Questions or contact eBioscience Technical Support.

References

Rodriguez MW, Paquet AC, Yang YH, Erle DJ. Differential gene expression by integrin beta7+ and beta7- memory T helper cells. BMC Immunol. 2004 Jul 5;5:13. (FIB504, FC, PubMed)

Meerschaert J, Vrtis RF, Shikama Y, Sedgwick JB, Busse WW, Mosher DF. Engagement of alpha4beta7 integrins by monoclonal antibodies or ligands enhances survival of human eosinophils in vitro. J Immunol. 1999 Dec 1;163(11):6217-27. (FIB504, FA, PubMed)

Andrew DP, Berlin C, Honda S, Yoshino T, Hamann A, Holzmann B, Kilshaw PJ, Butcher EC. Distinct but overlapping epitopes are involved in alpha4beta7-mediated adhesion to vascular cell adhesion molecule-1, mucosal addressin-1, fibronectin, and lymphocyte aggregation. J Immunol. 1994 Nov 1;153(9):3847-61. (**FIB504**, FA, PubMed)

Related Products

00-4222 Flow Cytometry Staining Buffer 48-0038 Anti-Human CD3 eFluor® 450 (UCHT1) 95-4321 Rat IgG2a K Isotype Control eFluor® 650NC (eBR2a)

Legal

Under patent number: US 7,939,170 and additional pending patent application(s)

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