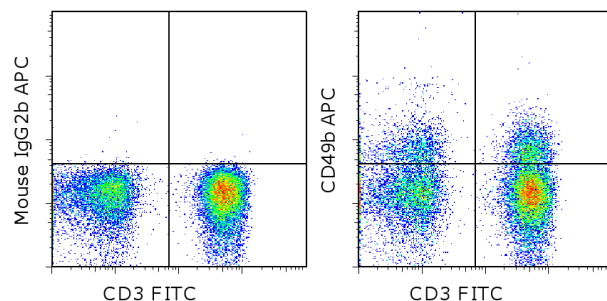


Anti-Human CD49b (Integrin alpha 2) APC

Catalog Number: 17-0500

Also known as: ITGA2, VLA-2, ECMR II

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



Staining of normal human peripheral blood cells with Anti-Human CD3 FITC (cat. 11-0039) and Mouse IgG2b K Isotype Control APC (cat. 17-4732) (left) or Anti-Human CD49b (Integrin alpha 2) APC (right). Cells in the lymphocyte gate were used for analysis.

Product Information

Contents: Anti-Human CD49b (Integrin alpha 2) APC



Catalog Number: 17-0500

Clone: P1H5

Concentration: 5 uL (0.125 ug)/test

Host/Isotype: Mouse IgG2b, kappa



Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer

Temperature Limitation: Store at 2-8°C. Do not freeze. Light-sensitive material.



Batch Code: Refer to vial



Use By: Refer to vial

Contains sodium azide

Description

This P1H5 monoclonal antibody reacts with human CD49b, which is also known as integrin alpha 2. Integrins constitute a family of cell surface receptors that mediate adhesion between cells or between a cell and the extracellular matrix. These proteins are heterodimers consisting of two distinct subunits, alpha and beta. Integrins are expressed on hematopoietic, non-hematopoietic, and cancer cells. Integrin-mediated adhesion is regulated by changes in ligand affinity (or activation), cell shape, and integrin clustering and diffusion. Integrin alpha 2 forms a complex with the common beta 1 subunit to form the alpha2beta1 integrin, which binds type I collagen and laminin. Moreover, studies suggest that this complex suppresses metastasis in cancer and participates in T cell costimulation by activating the MAPK and PI3K pathways.

The P1H5 monoclonal antibody has been reported to inhibit adhesion of fibroblasts and platelets to collagen. Crossblocking studies indicate that P1H5 and eBioY418 recognize different epitopes.

Applications Reported

This P1H5 antibody has been reported for use in flow cytometric analysis.

Applications Tested

This P1H5 antibody has been pre-titrated and tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at 5 µL (0.125 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.

References

Ramirez NE, Zhang Z, Madamanchi A, Boyd KL, O'Rear LD, Nashabi A, Li Z, Dupont WD, Zijlstra A, Zutter MM. The alpha2beta1 integrin is a metastasis suppressor in mouse models and human cancer. J Clin Invest. 2011 Jan 4;121(1):226-37.

Boisvert M, Chetoui N, Gendron S, Aoudjit F. Alpha2beta1 integrin is the major collagen-binding integrin expressed

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on human Th17 cells. Eur J Immunol. 2010 Oct;40(10):2710-9.

Takada Y, Wayner EA, Carter WG, Hemler ME. Extracellular matrix receptors, ECMRII and ECMRI, for collagen and fibronectin correspond to VLA-2 and VLA-3 in the VLA family of heterodimers. J Cell Biochem. 1988 Aug;37(4):385-93. (**P1H5**, IP)

Kunicki TJ, Nugent DJ, Staats SJ, Orzechowski RP, Wayner EA, Carter WG. The human fibroblast class II extracellular matrix receptor mediates platelet adhesion to collagen and is identical to the platelet glycoprotein Ia-IIa complex. J Biol Chem. 1988 Apr 5;263(10):4516-9. (**P1H5**, IP, FA (blocking))

Related Products

11-0039 Anti-Human CD3 FITC (HIT3a)

11-0498 Anti-Human CD49b (Integrin alpha 2) FITC (eBioY418 (Y418))

17-4732 Mouse IgG2b K Isotype Control APC