

Monoclonal Antibody to CD29 / Integrin beta-1 - FITC

Alternate names:	FNRB, Fibronectin receptor subunit beta, ITGB1, Integrin VLA-4 subunit beta, MDF2, MSK12
Catalog No.:	SM3016F
Quantity:	100 Tests
Background:	CD29 (b1 integrin subunit, GPIIa) forms non-covalently linked heterodimers with at least 6 different a chains (a1-a6, CD49a-f) determining the binding properties of b1 (VLA) integrins. These integrins mediate cell adhesion to collagen, fibronectin, laminin and other extracellular matrix (ECM) components. This interaction hinders cell death, whereas disruption of anchorage to ECM leads to apoptosis. Decreased expression of most b1 integrins correlates with acquiring multidrug resistance of tumour cells during selection in presence of antitumour drug. In platelets, translocation of intracellular pool of b1 integrins to the plasma membrane following thrombin stimulation. These integrins are also up-regulated in leukocytes during emigration and extravascular migration and appear to be critically involved in regulating the immune cell trafficking from blood to tissue, as well as in regulating tissue damage and disease symptoms related to inflammatory bowel disease. Through a b1 integrin-dependent mechanism, fibronectin and type I collagen enhance cytokine secretion of human airway smooth muscle in response to IL-1b.
Uniprot ID:	P05556
NCBI:	9606
Host / Isotype:	Mouse / IgG1
Clone:	MEM-101A
Immunogen:	Raji Burkitt's lymphoma cell line
Format:	State: Liquid purified Ig fraction. Buffer System: PBS containing 15 mM Sodium Azide as a preservative and 0.2% (w/v) high-grade protease free BSA as a stabilizer. Label: FITC – Fluorescein Isothiocyanate : The reagent is free of unconjugated
Applications:	Flow Cytometry analysis of Human blood cells using 20 µl reagent / 100 µl of whole blood or 10e6 cells in a suspension. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	The antibody clone MEM-101A reacts with CD29, broadly expressed on majority of hematopoietic and non-hematopoietic cells (leukocytes, platelets, fibroblasts, endothelial cells, epithelial cells and mast cells). Species: Human, Porcine and Canine. Does not react with Mouse. Other species not tested.

For research and in vitro use only. Not for diagnostic or therapeutic work.

Material Safety Datasheets are available at www.acris-antibodies.com or on request.

Antibody Hotline - Technical Questions - Antibody Location Service
Free Call: 0800-2274746 (Germany only) - www.acris-antibodies.com

Storage:

Store the antibody undiluted in the dark at 2-8°C.

DO NOT FREEZE!

This product is photosensitive and should be protected from light.

Shelf life: one year from despatch.

General References:

1. Wencel-Drake JD, Dieter MG, Lam SC: Immunolocalization of beta 1 integrins in platelets and platelet-derived microvesicles. *Blood*. 1993 Aug 15;82(4):1197-203.
2. Werr J, Johansson J, Eriksson EE, Hedqvist P, Ruoslahti E, Lindbom L: Integrin alpha(2)beta(1) (VLA-2) is a principal receptor used by neutrophils for locomotion in extravascular tissue. *Blood*. 2000 Mar 1;95(5):1804-9.
3. Peng Q, Lai D, Nguyen TT, Chan V, Matsuda T, Hirst SJ: Multiple beta 1 integrins mediate enhancement of human airway smooth muscle cytokine secretion by fibronectin and type I collagen. *J Immunol*. 2005 Feb 15;174(4):2258-64.
4. Lundberg S, Lindholm J, Lindbom L, Hellström PM, Werr J: Integrin alpha2beta1 regulates neutrophil recruitment and inflammatory activity in experimental colitis in mice. *Inflamm Bowel Dis*. 2006 Mar;12(3):172-7.
5. Morozovich GE, Kozlova NI, Preobrazhenskaya ME, Ushakova NA, Eltsov IA, Shtil AA, Berman AE: The role of beta1 integrin subfamily in anchorage-dependent apoptosis of breast carcinoma cells differing in multidrug resistance. *Biochemistry (Mosc)*. 2006 May;71(5):489-95.
6. Leukocyte Typing VI., Kishimoto T. et al. (Eds.), Garland Publishing Inc. (1997).
7. Simova S, Klima M, Cermak L, Sourkova V, Andera L: Arf and Rho GAP adapter protein ARAP1 participates in the mobilization of TRAIL-R1/DR4 to the plasma membrane. *Apoptosis*. 2008 Mar;13(3):423-36.

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