Datasheet for ABIN94055

anti-ITGB1 antibody (Biotin)

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Overview

Quantity:	0.1 mg
Target:	ITGB1
Reactivity:	Human, Pig, Dog
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This ITGB1 antibody is conjugated to Biotin
Application:	Western Blotting (WB), Flow Cytometry (FACS), Immunoprecipitation (IP)

Product Details

Immunogen:	Raji Burkitt's lymphoma cell line
Clone:	MEM-101A
Isotype:	IgG1
Specificity:	The antibody MEM-101A reacts with an extracellular epitope of CD29 (integrin beta1 chain), a 130 kDa single chain type I glycoprotein expressed as a heterodimer (non-covalently associated with the integrin alpha subunits 1-6). CD29 is broadly expressed on majority of hematopoietic and non-hematopoietic cells (leukocytes, platelets, fibroblasts, endothelial cells, epithelial cells and mast cells).
No Cross-Reactivity:	Mouse
Cross-Reactivity (Details):	Human, Porcine, Canine (Dog)
Purification:	Purified antibody is conjugated with biotin LC-NHS ester under optimum conditions and unconjugated antibody and free biotin are removed by size-exclusion chromatography.

Target Details

Target:	ITGB1
Alternative Name:	CD29 (ITGB1 Products)
Background:	Integrin subunit beta 1,CD29 (beta1 integrin subunit, GPIIa) forms non-covalently linked heterodimers with at least 6 different alpha chains (alpha1-alpha6, CD49a-f) determining the binding properties of beta1 (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 beta1 integrins correlates with acquiring multidrug resistance of tumour cells during selection in presence of antitumour drug. In platelets, translocation of intracellular pool of beta1 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 beta1 integrin-dependent mechanism, fibronectin and type I collagen enhance cytokine secretion of human airway smooth muscle in response to IL-1beta.,Integrin β,1 chain, ITGB1, VLAB, MDF2, FNRB, GPIIA, MSK12
Gene ID:	3688
UniProt:	P05556
Pathways:	Cell-Cell Junction Organization, Regulation of G-Protein Coupled Receptor Protein Signaling, CXCR4-mediated Signaling Events, Signaling of Hepatocyte Growth Factor Receptor, Integrin Complex, SARS-CoV-2 Protein Interactome

Application Details

Application Notes:	Flow cytometry: Recommended dilution: 1-2 µg/mL.
Comment:	The purified antibody is conjugated with Biotin-LC-NHS under optimum conditions. The reagent is free of unconjugated biotin.
Restrictions:	For Research Use only

Handling

Concentration:	1 mg/mL
Buffer:	Phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Preservative:	Sodium azide

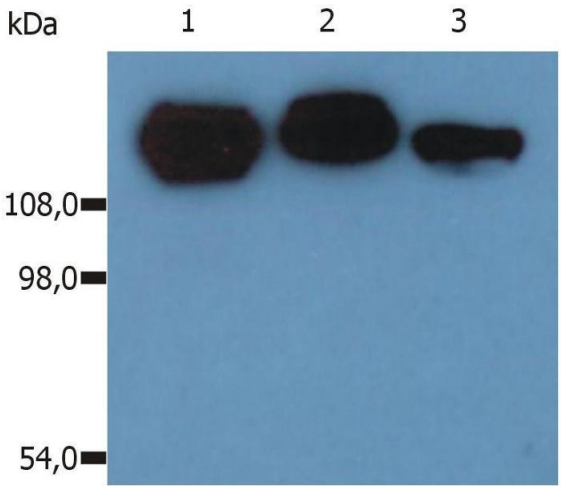
Handling

Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	**Do not freeze.** Avoid prolonged exposure to light.
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Do not freeze.

Publications

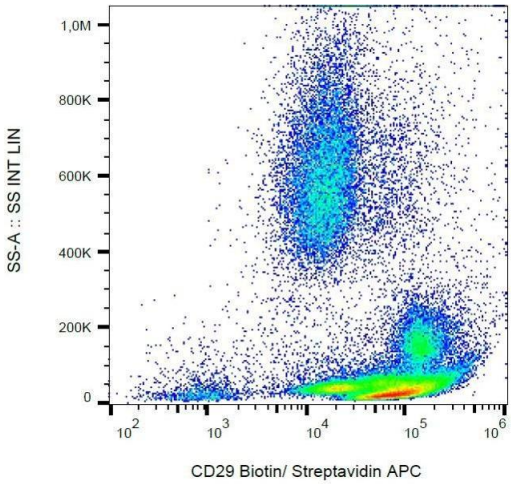
Product cited in:	Plánka, Necas, Srnec, Rauser, Starý, Jancár, Amler, Filová, Hlucilová, Kren, Gál: "Use of allogenic stem cells for the prevention of bone bridge formation in miniature pigs." in: **Physiological research / Academia Scientiarum Bohemoslovaca**, Vol. 58, Issue 6, pp. 885-93, (2010) (PubMed). Símová, Klíma, Cermak, Sourková, Andera: "Arf and Rho GAP adapter protein ARAP1 participates in the mobilization of TRAIL-R1/DR4 to the plasma membrane." in: **Apoptosis : an international journal on programmed cell death**, Vol. 13, Issue 3, pp. 423-36, (2008) (PubMed).

Images



Western Blotting

Image 1. Western Blotting analysis (non-reducing conditions) of isolated peripheral blood lymphocytes of various species using anti-CD29 (MEM-101A). Lane 1: lysate of human PBL Lane 2: lysate of canine PBL Lane 3: lysate of porcine PBL



Flow Cytometry

Image 2. Surface staining of human peripheral blood with anti-human CD29 (MEM-101A) biotin, streptavidin-APC.

