

## anti-human CD29

The antibody MEM-101A reacts with CD29 antigen (Integrin beta 1 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).

**CD29** ( $\beta 1$  integrin subunit, GPIIa) forms non-covalently linked heterodimers with at least 6 different  $\alpha$  chains ( $\alpha 1$ - $\alpha 6$ , CD49a-f) determining the binding properties of  $\beta 1$  (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  $\beta 1$  integrins correlates with acquiring multidrug resistance of tumour cells during selection in presence of antitumour drug. In platelets, translocation of intracellular pool of  $\beta 1$  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  $\beta 1$  integrin-dependent mechanism, fibronectin and type I collagen enhance cytokine secretion of human airway smooth muscle in response to IL-1 $\beta$ .

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| <b>Clone:</b>               | MEM-101A   |
| <b>Isotype:</b>             | Mouse IgG1   |
| <b>Species Reactivity:</b>  | Human, Mouse, Porcine  |
| <b>Physical state:</b>      | Purified from ascites by protein-A affinity chromatography                                 |
| <b>Purity:</b>              | > 98% (by SDS-PAGE)  |
| <b>Buffer:</b>              | PBS with 15 mM sodium azide (pH 7.4)   |
| <b>Storage Instruction:</b> | Store at 4 °C. For long-term storage aliquot and store at -20°C. Avoid freeze/thaw cycles. |
| <b>Application:</b>         | Flow Cytometry   |
| <b>Reference:</b>           | Leukocyte Typing VI. Kishimoto T. et al. (Eds.), Garland Publishing Inc. (1997)            |
| <b>Quantity:</b>            | 0.1 mg   |
| <b>Order N°:</b>            | H12162   |

**Warning:** Sodium azide is harmful if swallowed (R22). Keep out of reach of children (S2). Keep away from food, drink and animal feeding stuff (S13). Wear suitable protective clothing (S36). If swallowed, seek medical advice immediately and show this container or label (S46). Contact with acids liberates very toxic gas (R32).

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