

anti-human -human/-mouse/-porcine CD29 FITC-conjugated

FITC - conjugated monoclonal antibody MEM-101A to CD29 (human/ mouse/ porcine)

Cat-No: **21270293**

500 µl

Clone: MEM-101A

Specificity: 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).

HLDA VI; WS Code AS A048

Isotype: Mouse IgG1

Species Reactivity: Human, Porcine, Canine (Dog)

Negative Species: Mouse

Form: The purified antibody is conjugated with Fluorescein isothiocyanate (FITC) under optimum conditions. The reagent is adjusted for direct use. No reconstitution is necessary.

Buffer/Additives/Preservative: PBS containing 1% BSA and 0.09% sodium azide (pH 7.2)

Expiration date: The reagent is stable until the expiry date stated on the vial label.

Storage conditions: Store at 4° C. Do not freeze. Avoid prolonged exposure to light.

Application: Flow Cytometry

Background: **CD29** ($\beta 1$ integrin subunit, GPIIa) forms non-covalently linked heterodimers with at least 6 different α 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 β .

References: Leukocyte Typing VI. Kishimoto T. et al. (Eds.), Garland Publishing Inc. (1997).

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). Azide compounds should be flushed with large volumes of water during disposal to avoid deposits in lead or copper plumbing where explosive conditions can develop.

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