

## anti-human/ -mouse/ -porcine CD29

### Monoclonal Antibody MEM-101A to CD29 (Human)

Cat-No: **21270291**

100 µg in 100 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 subclass:** Mouse IgG1

**Species Reactivity:** Human, Porcine, Canine (Dog)

**Negative Species:** Mouse

**Form:** Purified from ascites by protein-A affinity chromatography.

**Purity:** > 98% (by SDS-PAGE)

**Physical state:** Liquid

**Buffer/Additives/Preservative:** PBS containing 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. For long-term storage aliquot and store at -20°C. Avoid freeze/thaw cycles.

**Application:** Flow Cytometry, Immunoprecipitation, Western Blotting

**Background:** CD29 (β1 integrin subunit, GPIIa) forms non-covalently linked heterodimers with at least 6 different α chains (α1-α6, CD49a-f) determining the binding properties of β1 (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 β1 integrins correlates with acquiring multidrug resistance of tumour cells during selection in presence of antitumour drug. In platelets, translocation of intracellular pool of β1 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 β1 integrin-dependent mechanism, fibronectin and type I collagen enhance cytokine secretion of human airway smooth muscle in response to IL-1β.

**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.

This material is offered for **research only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

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