

TECHNICAL DATA SHEET

CyFlow™ CD29 Pacific Blue™ Anti-Hu; Clone MEM-101A

REF BT175657

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD29
Alternative Names	Integrin β 1
Clone	MEM-101A
Clonality	monoclonal
Format	Pacific Blue™
Host / Isotype	Mouse / IgG1
Species Reactivity	Human, Pig Dog
Negative Species Reactivity	Mouse
Quantity	100 tests
Immunogen	Raji cells: human Burkitt's lymphoma cell line

Specificity

The mouse monoclonal antibody MEM-101A recognizes CD29 antigen, a 130 kDa single chain type I glycoprotein expressed as a heterodimer (non-covalently associated with the integrin α subunits 1-6).

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CD29 is broadly expressed on majority of hematopoietic and non-hematopoietic cells (leukocytes, platelets, fibroblasts, endothelial cells, epithelial cells and mast cells).

Application

The reagent is designed for Flow Cytometry analysis of human blood cells. Recommended usage is 4 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension. The content of a vial (0.4 ml) is sufficient for 100 tests.

Other usages may be determined from the scientific literature.

Storage Buffer

The reagent is provided in stabilizing phosphate buffered saline (PBS) solution, pH ≈7.4, containing 0.1% (w/v) sodium azide.

Storage and Stability

Storage	Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.
Stability	Do not use after expiration date stamped on vial label.

Background Information

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 tumor cells during selection in presence of antitumor 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.

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The Safety Data Sheet for this product is available at www.sysmex-partec.com/services.

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