

TECHNICAL DATA SHEET

CyFlow™ CD41 PE-Cy5 Anti-Hu; Clone MEM-06

REF CW776518

For Research Use Only.
Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD41
Alternative Names	gpIIb
Clone	MEM-06
Clonality	monoclonal
Format	PE-Cy5
Host / Isotype	Mouse / IgG1
Species Reactivity	Human
Negative Species Reactivity	—
Quantity	100 tests
Immunogen	Leukocytes of a patient suffering from LGL-type Leukemia

Specificity

The mouse monoclonal antibody MEM-06 recognizes CD41 antigen, a transmembrane glycoprotein (integrin family) composed of two chains GPIIb α (heavy chain; 120 kDa) and GPIIb β (light chain; 23 kDa). CD41 is mainly expressed on platelets and megakaryocytes.

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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

CD41 (GPIIb; platelet glycoprotein IIb) is composed of two subunits (120 kDa GPIIb α and 23 kDa GPIIb β) that interact with CD61 in the presence of calcium to form a functional adhesive protein receptor. Upon blood vessel damage, this receptor binds to a variety of proteins including von Willebrand factor, fibrinogen, fibronectin and vitronectin. CD41 is mainly expressed on megakaryocyte-platelet lineage, but generally belongs to the antigens that are expressed during early stages of hematopoietic differentiation.

References

- Debili N, Robin C, Schiavon V, Letestu R, Pflumio F, Mitjavila-Garcia MT, Coulombel L, Vainchenker W: Different expression of CD41 on human lymphoid and myeloid progenitors from adults and neonates. Blood. 2001 Apr 1; 97(7):2023-30. < PMID: 11264167 >
- Mitjavila-Garcia MT, Cailleret M, Godin I, Nogueira MM, Cohen-Solal K, Schiavon V, Lecluse Y, Le Pesteur F, Lagrue AH, Vainchenker W: Expression of CD41 on hematopoietic progenitors derived from embryonic hematopoietic cells. Development. 2002 Apr; 129(8):2003-13. < PMID: 11934866 >
- Ferkowicz MJ, Starr M, Xie X, Li W, Johnson SA, Shelley WC, Morrison PR, Yoder MC: CD41 expression defines the onset of primitive and definitive hematopoiesis in the murine embryo. Development. 2003 Sep; 130(18):4393-403. < PMID: 12900455 >

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- Zhang J, Varas F, Stadtfeld M, Heck S, Faust N, Graf T: CD41-YFP mice allow in vivo labeling of megakaryocytic cells and reveal a subset of platelets hyperreactive to thrombin stimulation. Exp Hematol. 2007 Mar; 35(3):490-499. < PMID: 17309829 >

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

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