

TECHNICAL DATA SHEET

CyFlow™ CD41 Low Endotoxin Anti-Ms; Clone MWReg30

REF CA478931

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD41
Alternative Names	gpIIb
Clone	MWReg30
Clonality	monoclonal
Format	Low Endotoxin
Host / Isotype	Rat / IgG1
Species Reactivity	Mouse
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [1 mg/ml]
Immunogen	Murine platelets

Specificity

The rat monoclonal antibody MWReg30 recognizes mouse 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

Based on published sources, this antibody is suitable for the following applications:

- Flow cytometry
- Immunoprecipitation
- Immunohistochemistry
- Functional assays
- Enzyme-linked immunosorbent assay

Storage Buffer

The reagent is provided in azide-free phosphate buffered saline (PBS) solution, pH $\approx$ 7.4; 0.2 μ m filter sterilized. Endotoxin level is less than 0.01 EU/ μ g of the protein, as determined by the LAL test.

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

- Sullivan BP, Wang R, Tawfik O, Luyendyk JP: Protective and damaging effects of platelets in acute cholestatic liver injury revealed by depletion and inhibition strategies. Toxicol Sci. 2010 May; 115(1):286-94. < PMID: 20133375 >
- Boisset JC, Clapes T, Van Der Linden R, Dzierzak E, Robin C: Integrin α IIb (CD41) plays a role in the maintenance of hematopoietic stem cell activity in the mouse embryonic aorta. Biol Open. 2013 Apr 11; 2(5):525-32. < PMID: 23789102 >

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- Ramsey H, Zhang Q, Brown DE, Steensma DP, Lin CP, Wu MX: Stress-induced hematopoietic failure in the absence of immediate early response gene X-1. Haematologica. 2013 Sep 20; < PMID: 23812939 >

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

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