

TECHNICAL DATA SHEET

CyFlow™ CD42b Low Endotoxin Anti-Hu; Clone AK2

REF AQ645474

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD42b
Alternative Names	GPIIb
Clone	AK2
Clonality	monoclonal
Format	Low Endotoxin
Host / Isotype	Mouse / IgG1
Species Reactivity	Human
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [1 mg/ml]
Immunogen	Human platelets

Specificity

The mouse monoclonal antibody AK2 recognizes CD42b antigen, a 135-145 kDa membrane glycoprotein expressed on platelets and megakaryocytes. CD42b and CD42c are composed in a disulfide linked heterodimer (CD42b/c; 160 kDa); CD42b/c forms a noncovalent complex with CD42a and CD42d.

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Application

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

- Flow cytometry
- Immunoprecipitation
- Western blot
- Immunocytochemistry
- Enzyme-linked immunosorbent assay

Storage Buffer

The reagent is provided in azide-free phosphate buffered saline (PBS) solution, pH ≈7.4; 0.2 µm filter sterilized. Endotoxin level is less than 0.01 EU/µg 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

CD42b (GPIb α) composes together with GPIb β, GPIX and GPV the GPIb-IX-V receptor complex critical in the process of platelet-rich thrombus formation by tethering the platelet to a thrombogenic surface. CD42b binds to von Willebrand factor (VWF) exposed at a site of vascular injury, as well as to thrombin, coagulation factors XI and XII, high molecular weight kininogen, TSP-1, integrin Mac-1 and P-selectin. The extracellular domain of CD42b by its interactions also contributes to metastasis.

References

- Vettore S, Scandellari R, Moro S, Lombardi AM, Scapin M, Randi ML, Fabris F: Novel point mutation in a leucine-rich repeat of the GPIb alpha chain of the platelet von Willebrand factor receptor, GPIb/IX/V, resulting in an inherited dominant form of Bernard-Soulier syndrome affecting two unrelated families: the N41H variant. *Haematologica*. 2008 Nov; 93(11):1743-7. < PMID: 18815197 >
- Welsh JD, Colace TV, Muthard RW, Stalker TJ, Brass LF, Diamond SL: Platelet-targeting sensor reveals thrombin gradients within blood clots forming in microfluidic assays and in mouse. *J Thromb Haemost*. 2012 Nov; 10(11):2344-53. < PMID: 22978514 >

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

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