

TECHNICAL DATA SHEET

CyFlow™ CD42b PE Anti-Hu; Clone AK2

REF AE407501

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD42b
Alternative Names	GPIIb
Clone	AK2
Clonality	monoclonal
Format	PE
Host / Isotype	Mouse / IgG1
Species Reactivity	Human
Negative Species Reactivity	—
Quantity	100 tests
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

The reagent is designed for Flow Cytometry analysis of human blood cells. Recommended usage is 10 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension. The content of a vial (1 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

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 >

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

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