

# anti-human CD42b

## Monoclonal Antibody HIP1 to CD42b (Human)

Cat-No: **21270421**

100 µg in 100 µl

**Clone:** HIP1

**Specificity:** The antibody HIP1 recognizes a glycoprotein, heterodimer (GPIb $\alpha$ ) which contains an  $\alpha$  chain (CD42b, 145 kDa) and a  $\beta$  chain (CD42c, 22 kDa) linked by a disulfid bond forming a noncovalent complex with CD42a (GPIX) and d. This antigen is expressed on platelets and megakaryocytes. The GPIb/IX complex (CD42a-d) serves as a receptor for von Willebrand Factor (vWF) and thrombin, and mediates adhesion of platelets to subendothelium of damaged vascular walls. The absence of the CD42 complex leads to the Bernard-Soulier Syndrome (BSS). HIP1 McAv inhibits the ristocetin-dependent binding of vWF to platelets, ristocetin-induced platelets agglutination, and partially inhibits collagen-induced aggregation.

**Isotype subclass:** Mouse IgG1

**Form:** Purified from ascites by protein-G affinity chromatography.

**Purity:** > 95% (by SDS-PAGE)

**Physical state:** Liquid

**Buffer/Additives/Preservative:** PBS containing 0.09 % sodium azide (pH 7.2).

**Expiration date:** The reagent is stable until the expiry date stated on the vial label.

**Storage conditions:** Store at 4°C. For long-term storage aliquot and store at -20°C. Avoid freeze/thaw cycles.

**Application:** Flow Cytometry  
Immunohistochemistry: (frozen sections)

**References:** Leucocyte Typing IV. Knapp W et al. (Eds.), Oxford University Press (1989).

**Background:** **CD42b** (GPIb $\alpha$ ) composes together with GPIb $\beta$ , 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.

**Warning:** Sodium azide is harmful if swallowed (R22). Keep out of reach of children (S2). Keep away from food, drink and animal feeding stuff (S13). Wear suitable protective clothing (S36). If swallowed, seek medical advice immediately and show this container or label (S46). Contact with acids liberates very toxic gas (R32). Azide compounds should be flushed with large volumes of water during disposal to avoid deposits in lead or copper plumbing where explosive conditions can develop.

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