

# anti-human CD41a

## Monoclonal Antibody HIP8 to CD41a (Human)

Cat-No: **21810411**

100 µg in 100 µl

**Clone:** HIP8

**Specificity:** The antibody HIP8 recognizes a 140kDa glycoprotein which is the  $\alpha$  subunit of the CD41/CD61 (GPIIb/IIIa,  $\alpha$ IIb $\beta$ 3) complex called glycoprotein IIb (GPIIb). GPIIb is a calcium-dependent, noncovalently associated heterodimer and contains a heavy chain (GPIIb $\alpha$ ) and a light chain (GPIIb $\beta$ ) linked by a single disulfid bond. CD41 antigen is restrictedly expressed by platelets and platelet precursors (megakaryocytes). CD41/CD61 complex is the receptor of fibrinogen, fibronectin and von Willebrand factor, and plays a central role in platelet activation and aggregation. The GPIIb/IIIa may be absent or strongly reduced in Glanzmann's thrombasthenia (GT): HIP8 McAb may completely inhibit platelet aggregation and ATP secretion induced by ADP, thrombin and collagen.

**Isotype subclass:** Mouse IgG1

**Form:** Purified 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 (acetone-fixed frozen sections)

### References:

- \* Knapp W., B.Dorken, E.P. Rieber, et al., eds. 1989. Leukocyte Typing IV: White Cell Differentiation Antigens, Oxford University Press
- \* Tadimitsu K, K. Hitoshi, A.E.G:Kr. van dem Borne, et al., eds. 1997. Leukocyte Typing VI: White Cell Differentiation Antigens, Garland Publ, Inc. New York
- \* Bao CX., Liu JW., Chen GZ., et al., 1992. Some biological characterization of monoclonal antibody HIP2 receptor on platelet membrane glycoprotein IIb. Chinese J. of Hematology

**Background:** **CD41** (platelet glycoprotein IIb) is composed of two subunits (120 kDa  $\alpha$ , alpha and 23 kDa  $\beta$ , beta) 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.

**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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Gladiolenweg 2; 26169 Friesoythe; Germany  
phone:+49-(0)4491-400997, fax:+49-(0)4491-400998, [info@immunotools.com](mailto:info@immunotools.com)  
[www.immunotools.com](http://www.immunotools.com)