

anti-human CD41a APC-conjugated

APC -conjugated monoclonal antibody HIP8 to human CD41a

Cat-No: **21810416**

500 µl

Clone: HIP8

Specificity: The antibody HIP8 recognizes a 140kDa glycoprotein which is the α subunit of the CD41/CD61 (GPIIb/IIIa, α IIb β 3) complex called glycoprotein IIb (GPIIb). GPIIb is a calcium-dependent, noncovalently associated heterodimer and contains a heavy chain (GPIIb α) and a light chain (GPIIb β) 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: The purified antibody is conjugated with cross-linked Allophycocyanin (APC) under optimum conditions. The reagent is adjusted for direct use. No reconstitution is necessary.

Physical state: Liquid

Buffer/Additives/Preservative: PBS containing 1% BSA and 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. Avoid prolonged exposure to light.

Application: Flow Cytometry

Background: CD41 (platelet glycoprotein IIb) is composed of two subunits (120 kDa α , alpha and 23 kDa β , 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.

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

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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