PE-labeled Rat Anti-Mouse Integrin αIIbβ3 (GPIIbIIIa, CD41/61) Monoclonal Antibody

M023-2

Product Information

Catalog Number:	M023-2
Clone / Isotype:	JON/A / Rat (Wistar) IgG2b
Contents:	PE-labeled immunoglobulin in 20 mM Tris buffer with 137 mM NaCl, 0.5% BSA and 0.09% (w/v) sodium azide
Size:	1.5 ml / 300 tests

For research use only, not for diagnostic or therapeutic use. This product is no medical device.

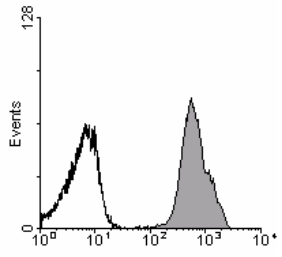
Specificity: The PE-conjugated JON/A antibody selectively binds to the high affinity conformation of mouse integrin αIIbβ3[1] (GPIIbIIIa, CD41/CD61), a glycoprotein complex consisting of the 135-kDa αIIb chain and the 90-kDa β3 chain. Integrin αIIbβ3 is a platelet receptor for fibrinogen, von Willebrand factor, fibronectin, and vitronectin, and it mediates platelet adhesion and aggregation[2]. The activation-dependent conformational change in integrin αIIbβ3, and therefore binding of JON/A-PE is dependent on extracelluar free calcium[1].

Preparation and Storage: The antibody was purified from hybridoma cell culture supernatant by Protein G-Sepharose chromatography. The antibody was conjugated with R-Phycoerythrin (PE) under optimum conditions. Store product undiluted at 4°C and avoid prolonged exposure to light. Stable for one year from date of shipment. Do not freeze.

Usage: The antibody preparation is optimized for flow cytometric applications: It is recommended to use 5 µl to stain ~10^6 platelets or ~$0.5x10^6$ cells in a volume of 25 µl Tyrode-Hepes buffer containing 1 mM $CaCl_2$. Incubate for 15 minutes at room temperature, stop reaction by addition of 400 µl PBS and analyze samples within 30 minutes. Please note that changes in incubation time, buffer conditions, or antibody concentration may influence binding of JON/A-PE.

Caution: Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer.

Detection of activated integrin αIIbβ3 on mouse platelets
10^6 resting (*black line*) or thrombin-activated (*shaded area)* mouse platelets in 25 µl Tyrode-Hepes buffer (1 mM $CaCl_2$) were stained with 5 µl JON/A-PE for 15 min at RT and analyzed directly. Platelets were gated by FSC/SSC characteristics.



Log fluorescence intensity. FL2

Mouse platelets

References:

1. Bergmeier W, Schulte V, Brockhoff G, Bier U, Zirngibl H, Nieswandt B. (2002) Flow cytometric detection of activated mouse integrin alphaIIbbeta3 with a novel monoclonal antibody. *Cytometry* 1;48:80-6.
2. Phillips DR, Charo IF, Scarborough RM. (1990) GPIIb-IIIa: the responsive integrin. *Cell*. 65(3):359-62.