

**# M011-1****Product Information**

Catalog Number: M011-1  
Clone / Isotype: JAQ1/ Rat (Wistar) IgG2a  
Contents: FITC-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 JAQ1 antibody reacts with mouse GPVI, a platelet/megakaryocyte-specific 60 to 65 kDa type I transmembrane glycoprotein belonging to the immunoglobulin superfamily<sup>1</sup>. GPVI non-covalently associates with the signal-transducing FcR $\gamma$ -chain in the platelet membrane and serves as an activating collagen receptor<sup>2</sup>. JAQ1 inhibits collagen-induced aggregation of mouse platelets<sup>3</sup>. JAQ1 alone does not activate platelets. Cross-linking of JAQ1 by a secondary antibody, however, induces activation and aggregation of mouse platelets<sup>3</sup>.

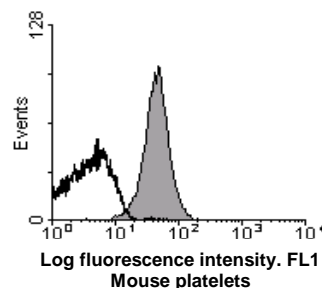
**Preparation and Storage:** The antibody was purified from hybridoma cell culture supernatant by Protein G-Sepharose chromatography. The antibody was conjugated with FITC under optimum conditions. The solution is free of unbound FITC. Store product undiluted at 4°C and avoid prolonged exposure to light.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

**Usage:** The antibody preparation is optimized for flow cytometric applications: Use 5  $\mu$ l to stain  $\sim 10^6$  platelets or  $\sim 0.5 \times 10^6$  cells in a recommended volume of 25  $\mu$ l. Incubate for 15 minutes at room temperature, stop reaction by addition of 400  $\mu$ l PBS and analyze samples within 30 minutes. For immunofluorescent staining of acetone-fixed frozen sections, the appropriate dilution must be determined individually.

**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 GPVI on mouse platelets**

Mouse blood was diluted 1:20 and 25  $\mu$ l of this dilution were stained with 5  $\mu$ l control IgG-FITC (emfret Analytics, P190-1, *black line*) or JAQ1-FITC (*shaded area*) for 15 min at RT and analyzed directly. Platelets were gated by FSC/SSC characteristics.

**References:**

1. Clemetson JM, Polgar J, Magnenat E, et al. (1999) The platelet collagen receptor glycoprotein VI is a member of the immunoglobulin superfamily closely related to Fc $\alpha$ R and the natural killer receptors. *J Biol Chem.* 274(41):29019-24
2. Nieswandt B, Watson SP. (2003) Platelet-collagen interaction: is GPVI the central receptor? *Blood.* 102(2):449-61.
3. Nieswandt B, et al. (2000): Expression and function of the mouse collagen receptor glycoprotein VI is strictly dependent on its association with the FcR $\gamma$  chain. *J Biol Chem.* 275(31):23998-4002.