FITC-labeled Rat Anti-Mouse GPVI Monoclonal Antibody

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.

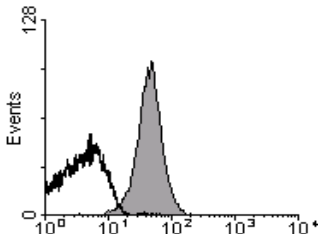
Specificity: The JAQ1 antibody reacts with mouse GPVI, a platelet/megakaryocyte-specific 60 to 65 kDa type I transmembrane glycoprotein belonging to the immunoglobulin superfamily[1]. GPVI non-covalently associates with the signal-transducing FcRγ-chain in the platelet membrane and serves as an activating collagen receptor[2]. JAQ1 inhibits collagen-induced aggregation of mouse platelets[3]. JAQ1 alone does not activate platelets. Cross-linking of JAQ1 by a secondary antibody, however, induces activation and aggregation of mouse platelets[3].

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 µl to stain ~10^6 platelets or ~0.5 x 10^6 cells in a recommended volume of 25 µl. Incubate for 15 minutes at room temperature, stop reaction by addition of 400 µl 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 µl of this dilution were stained with 5 µl 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.



Log fluorescence intensity. FL1
Mouse platelets

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 FcalphaR 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 FcRgamma chain. *J Biol Chem.* 275(31):23998-4002.