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Product Information

Monoclonal Anti-GP1BA, clone PM6/40
produced in mouse, purified immunoglobulin

Catalog Number **SAB4200247**

Product Description

Monoclonal Anti-GP1BA (mouse IgG1 isotype) is derived from the hybridoma PM6/40 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with human platelet membranes.[1] The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2. The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Monoclonal Anti-GP1BA recognizes human GP1BA/CD42b. The antibody may be used in several immunochemical techniques including immunoblotting (~140 kDa), FACS and immunohistochemistry.

GP1BA, also known as Glycoprotein Ib (GP Ib) and CD42b, is a platelet surface membrane glycoprotein that functions as a receptor for von Willebrand factor (VWF). It regulates the adhesion of blood platelets to damaged blood vessel walls and the subsequent platelet aggregation. It also transmits signals leading to platelet activation, aggregation and secretion.[2-3] Glycoprotein Ib is a heterodimer composed of an α- and β-chain, that are linked by disulfide bonds.[4] The complete receptor complex includes noncovalent association of the α- and β-subunits with platelet glycoprotein IX and platelet glycoprotein V.[5] The binding of the GP Ib-IX-V complex to VWF, facilitates initial platelet adhesion to vascular subendothelium after vascular injury, and also initiates signaling events within the platelet that lead to enhanced platelet activation, thrombosis, and hemostasis.[6] The interaction between Gp Ib and VWF was found to induce apoptotic events in platelets, suggesting a mechanism for platelet clearance or some thrombocytopenic disease.[7] Furthermore, several polymorphisms and mutations have been described in this gene, some of which are the cause of Bernard-Soulier syndromes and platelet-type von Willebrand disease.[6,8]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze at –20 °C in working aliquots. Repeated freezing and thawing, or storage in “frost-free” freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Flow Cytometry: a working concentration of 30-60 µg/mL is recommended using human platelet.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration.

References

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GG,RC,KAA,PHC 04/11-1