Technical Data Sheet

APC Mouse Anti-Human CD41a

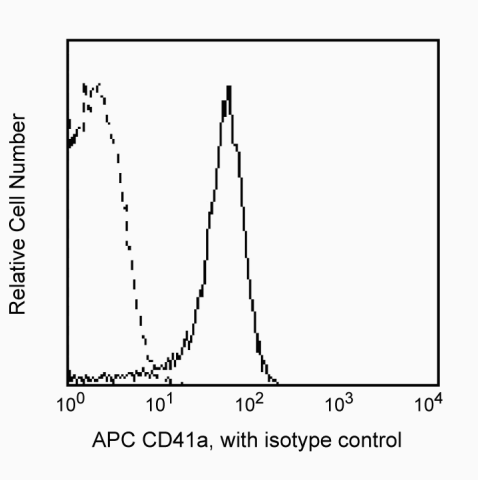
Product Information

Material Number:	**559777**
Alternate Name:	ITGA2B; Integrin alpha-2b (αIIb); Platelet glycoprotein IIb (GPIIb)
Size:	100 Tests
Vol. per Test:	20 µl
Clone:	HIP8
Immunogen:	Purified platelet membrane glycoproteins
Isotype:	Mouse (BALB/c) IgG1, κ
Reactivity:	QC Testing: Human Tested in Development: Rhesus, Cynomolgus, Baboon
Workshop:	IV P38
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The HIP8 monoclonal antibody specifically binds to the α-chain of CD41. CD41 is also known as Integrin αIIb or Platelet GPIIb. The calcium-dependent complex of CD41 and CD61 (β3 integrin or GPIIIa) is normally expressed on platelets and megakaryocytes. The CD41/CD61 complex is the receptor for fibrinogen, fibronectin and von Willebrand factor, and mediates platelet adhesion and aggregation. CD41 (clone HIP8) completely inhibits ADP-, epinephrine-, and collagen-induced platelet activation, and partially inhibits ristocetin- and thrombin-induced platelet activation. This antibody is useful in the morphological and physiological studies of platelets and megakaryocytes.

Clone HIP8 also cross-reacts with a major subset of peripheral blood platelets of baboon, and both rhesus and cynomolgus macaque monkeys. The staining pattern of platelets is similar to that observed with peripheral blood platelets from normal human donors.



Flow cytometric analysis of CD41a expression on human peripheral blood platelets. *Platelets were stained with either APC Mouse IgG1, κ Isotype Control (Cat. No. 555751; dashed line histogram) or APC Mouse Anti-Human CD41a (Cat. No. 559777/561852; solid line histogram). Fluorescent histograms depicting CD41a (or Ig isotype) expression were derived from gated events with the side and forward light-scattering characteristics of viable platelets. Flow cytometry was performed on a BD FACScan™.*

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated to APC under optimum conditions, and unconjugated antibody and free APC were removed.

Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
555751	APC Mouse IgG1, κ Isotype Control	100 Tests	MOPC-21
561852	APC Mouse Anti-Human CD41a	25 Tests	HIP8
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)

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Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
6. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.
7. Please refer to http://regdocs.bd.com to access safety data sheets (SDS).
8. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.

References

Knapp W. W. Knapp .. et al., ed. *Leucocyte typing IV : white cell differentiation antigens.* Oxford New York: Oxford University Press; 1989:1-1182. (Clone-specific)
Schlossman SF. Stuart F. Schlossman .. et al., ed. *Leucocyte typing V : white cell differentiation antigens : proceedings of the fifth international workshop and conference held in Boston, USA, 3-7 November, 1993.* Oxford: Oxford University Press; 1995(Biology)