

Anti-Human CD41 Antibody, Clone HIP8, FITC



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Antibodies

Mouse monoclonal IgG1 antibody
against human, rhesus, cynomolgus
CD41, FITC-conjugated

Catalog #60114FI
#60114FI.1

100 tests 5 µL/test
25 tests 5 µL/test

FOR RESEARCH USE ONLY. NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES.

Product Description

The HIP8 antibody reacts with the ~125 kDa GPIIb α subunit of human CD41, a heterodimeric member of the integrin protein family expressed primarily on platelets, megakaryocytes, monocytes and acute megakaryoblastic leukemia cells. The GPIIb α subunit is linked to a smaller ~25 kDa subunit (GPIIb β) by a single disulfide bond. Three isoforms of CD41 that are generated by alternative splicing have been identified, one of which is expressed only by cancerous cells. CD41 associates non-covalently with CD61 (integrin β 3) in a calcium-dependent manner to form the CD41/CD61 (or GPIIb/IIIa) complex, which has been identified as a receptor for several ligands, including fibrinogen, fibronectin, von Willebrand factor, vitronectin, plasminogen, thrombin and thrombospondin. Binding to the CD41/CD61 complex involves an RGD tripeptidyl sequence in the ligand, and both ligand occupancy and ligand-mediated receptor clustering are functionally important in the integrin-mediated response, as exemplified by the role of fibrinogen in platelet adhesion and aggregation. The HIP8 antibody reportedly blocks platelet aggregation and inhibits the activation of platelets by several compounds, including ADP, epinephrine and collagen.

Target Antigen Name:	CD41
Alternative Names:	GPIIb, Integrin alpha 2b, Integrin alpha IIb, ITGA2B, Platelet glycoprotein IIb
Gene ID:	3674
Species Reactivity:	Human, Rhesus, Cynomolgus, Baboon, Capuchin Monkey, Chimpanzee, Pig
Host Species:	Mouse (BALB/c)
Clonality:	Monoclonal
Clone:	HIP8
Isotype:	IgG1, kappa
Immunogen:	Purified platelet membrane glycoproteins
Conjugate:	FITC

Applications

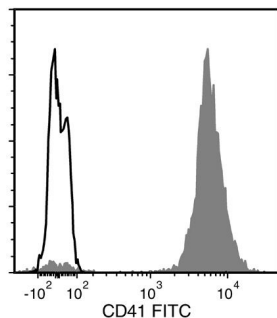
Verified:	FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Direct Human Total Lymphocyte Isolation Kit (Catalog #19655) and RosetteSep™ Human Monocyte Enrichment Cocktail (Catalog #15028).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) bovine serum albumin
Purification:	The antibody was purified by affinity chromatography and conjugated with FITC under optimal conditions. The solution is free of unconjugated FITC.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, please contact techsupport@stemcell.com .
Directions for Use:	For flow cytometry the suggested use of this antibody is $\leq 5 \mu\text{L}$ per 1×10^6 cells in 100 μL volume or per 100 μL whole blood. It is recommended that the antibody be titrated for optimal performance for each application.

Data



Flow cytometry analysis of human platelets labeled with Anti-Human CD41 Antibody, Clone HIP8, FITC (filled histogram) or Mouse IgG1, kappa Isotype Control Antibody, Clone MOPC-21, FITC (Catalog #60070FI; solid line histogram).

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

1. Damien P et al. (2015) LPS stimulation of purified human platelets is partly dependent on plasma soluble CD14 to secrete their main secreted product, soluble-CD40-Ligand. *BMC Immunol* 16(1): 3. (FC)
2. Inui M et al. (2015) Platelets convert peripheral blood circulating monocytes to regulatory cells via immunoglobulin G and activating-type Fcγ receptors. *BMC Immunol* 16(1): 20. (FC)
3. Chi X et al. (2014) Human platelets pathogen reduced with riboflavin and ultraviolet light do not cause acute lung injury in a two-event SCID mouse model. *Transfusion* 54(1): 74-85. (FC, IF, IHC)
4. Bashir S et al. (2013) Pathogen inactivation of platelets using ultraviolet C light: Effect on in vitro function and recovery and survival of platelets. *Transfusion* 53(5): 990-1000. (FC)
5. Chi X et al. (2012) Host platelets and, in part, neutrophils mediate lung accumulation of transfused UVB-irradiated human platelets in a mouse model of acute lung injury. *PLoS One* 7(9): e44829. (FC, IHC)
6. Reilly SJ et al. (2012) Coronary artery bypass graft surgery up-regulates genes involved in platelet aggregation. *J Thromb Haemost* 10(4): 557-63. (FC)
7. Jurk K et al. (2011) Extracellular protein disulfide isomerase regulates feedback activation of platelet thrombin generation via modulation of coagulation factor binding. *J Thromb Haemost* 9(11): 2278-90. (FC, IF)
8. Chae H & Park HH. (2009) EDTA inhibits the binding of clone 96.2c1, an anti-CD41a monoclonal antibody, to the platelets and addition of heparin and CaCl₂ to the antibody neutralizes the EDTA-induced inhibitory effect. *Korean J Hematol* 44(1): 42-46. (FC)
9. Delgado A V et al. (2003) Antibodies against human cell receptors, CD36, CD41a, and CD62P crossreact with porcine platelets. *Cytometry B Clin Cytom* 56(1): 62-67. (FC)
10. Kunz WS & Gressner AM. (2000) Standardized flow cytometric method for the accurate determination of platelet counts in patients with severe thrombocytopenia. *Cytometry* 42(5): 284-89. (FC)
11. McCarty OJ et al. (2000) Immobilized platelets support human colon carcinoma cell tethering, rolling, and firm adhesion under dynamic flow conditions. *Blood* 96(5): 1789-97. (FC)
12. Schlossman S & Bloumsell L et al. (Eds.). (1995). *Leucocyte Typing V: White Cell Differentiation Antigens*. New York, NY: Oxford University Press.

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