Datasheet: MCA594F

BATCH NUMBER 0211

Description:	MOUSE ANTI HUMAN CD42a:FITC
Specificity:	CD42a
Other names:	GPIX
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	FMC-25
Isotype:	IgG1
Quantity:	0.1 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

Target Species

Human

Product Form

Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
FITC	490	525

Preparation

Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers	0.09% Sodium Azide (NaN_3) 1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.1mg/ml
Immunogen	Peripheral blood mononuclear cells.
External Database Links	**UniProt:** P14770 Related reagents **Entrez Gene:** 2815 GP9 Related reagents
RRID	AB_10851215
Specificity	**Mouse anti Human CD42a antibody, clone FMC-25** recognizes human CD42a, also known as Platelet glycoprotein IX, Glycoprotein 9 or GP-IX. CD42a is a 177 amino acid, ~20kDa type I single pass transmembrane glycoprotein containing a single leucine-rich repeat containing N-terminal domain and a single leucine-rich repeat containing C-terminal domain. CD42a is expressed by platelets and megakaryocytes and forms a covalent complex with CD42c (GP-1b-beta), CD42b (GP-1b-alpha) and CD42d (platelet glycoprotein V) to create the platelet surface receptor for von Willebrand factor. Incubation of the intact von Willebrand receptor complex with clone FMC-25 does not appear to inhibit binding of von Willebrand factor to the receptor (Yan *et al.* 2011). Defects in the GP1BB gene encoding human CD42a can lead to the inherited bleeding disorder Bernard-Soulier syndrome (Diz-Küçükkaya 2013), characterized by prolonged bleeding times, thrombocytopenia and the appearance of giant platelets in the circulation (Johns *et al.* 2014). Mouse anti human CD42a antibody, clone FMC-25 has been successfully used as a capture reagent for platelet-autoantibody complexes in the sera of patients presenting thrombocytopenia associated with antiphospholipid syndrome (Godeau *et al.* 1997).
Flow Cytometry	Use 10ul of the suggested working dilution to label 1 x 10^6 cells in 100ul.
Histology Positive Control Tissue	Bone marrow
References	1. Zola, H. *et al.* (1984) Monoclonal antibodies against antigens of the human platelet surface: preparation and properties. Pathology. 16 (1): 73-8. 2. Berndt, M.C. *et al.* (1985) Molecular characterization of quinine/quinidine drug-dependent antibody platelet interaction using monoclonal antibodies. Blood. 66 (6): 1292-301. 3. Berndt, M.C. *et al.* (1985) Purification and preliminary characterization of the glycoprotein Ib complex in the human platelet membrane. Eur J Biochem. 151 (3): 637-49. 4. Berndt, M.C. *et al.* (1983) Additional glycoprotein defects in Bernard-Soulier's

syndrome: confirmation of genetic basis by parental analysis. Blood. 62 (4): 800-7.
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14. Meyer, O. *et al.* (2003) Diclofenac-induced antibodies against RBCs and platelets: two case reports and a concise review. Transfusion. 43: 345-9.
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18. Michel, M. *et al.* (2002) Platelet autoantibodies and lupus-associated thrombocytopenia. Br J Haematol. 119 (2): 354-8.
19. Schallmoser, K. *et al.* (2006) Delayed detectability of anti-HPA-3a by the MAIPA assay in a severe neonatal alloimmune thrombocytopenia, but successful transfusion of incompatible donor platelets: a case report. Vox Sang. 91 (2): 181-3.
20. Wihadmadyatami, H. *et al.* (2015) Alloantibody against new platelet alloantigen (Lap(a)) on glycoprotein IIb is responsible for a case of fetal and neonatal alloimmune thrombocytopenia. Transfusion. 55 (12): 2920-9.

Storage

Store at +4^{o}C or at -20^{o}C if preferred.

This product should be stored undiluted.

	Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA594F 10041
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:FITC (MCA928F)

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A)
HUMAN SEROBLOCK (BUF070B)

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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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