

Datasheet: MCA2045F

Description:	MOUSE ANTI HUMAN CD177:FITC
Specificity:	CD177
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	MEM-166
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 - 1/10

Where this product 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 product for use in their own system using appropriate negative/positive controls.

Target Species Human

Species Cross Reactivity Reacts with: Rhesus Monkey
N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

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 A from tissue culture supernatant

Buffer Solution Phosphate buffered saline

Preservative	0.09% sodium azide (NaN ₃)
Stabilisers	1% bovine serum albumin
Approx. Protein Concentrations	IgG concentration 0.1mg/ml
Immunogen	Human granulocytes.
External Database Links	<p>UniProt: Q8N6Q3 Related reagents</p> <p>Entrez Gene: 57126 CD177 Related reagents</p>
Synonyms	NB1, PRV1
RRID	AB_323349
Specificity	Mouse anti Human CD177 antibody, clone MEM-166 recognizes human CD177 (neutrophil glycoprotein NB1). The neutrophil NB1 antigen is expressed by 97% of the caucasian population. Antibodies against NB1 have been implicated in the pathology of neonatal alloimmune neutropenia (Lalezari et al. 1971).
Flow Cytometry	Use 10µl of the suggested working dilution to label 10 ⁶ cells in 100µl
References	<ol style="list-style-type: none"> 1. Kissel, K. <i>et al.</i> (2002) Molecular basis of NB1 (HNA-2a, CD177) deficiency. Blood. 99 (11): 4231-3. 2. Caruccio, L. <i>et al.</i> (2003) Expression of human neutrophil antigen-2a (NB1) is increased in pregnancy. Transfusion. 43 (3): 357-63. 3. Nishimura, M. <i>et al.</i> (2007) Detection of anti-CD32 alloantibody in donor plasma implicated in development of transfusion-related acute lung injury. Cell Biochem Funct. 25 (2): 179-83. 4. Sachs, U.J. <i>et al.</i> (2007) The neutrophil-specific antigen CD177 is a counter-receptor for platelet endothelial cell adhesion molecule-1 (CD31). J Biol Chem. 282: 23603-12. 5. Drewniak, A. <i>et al.</i> (2008) Granulocyte concentrates: prolonged functional capacity during storage in the presence of phenotypic changes. Haematologica. 93:1058-67. 6. Dillon, M. <i>et al.</i> (2008) Expression of the GPI-anchored receptor Prv-1 enhances thrombopoietin and IL-3-induced proliferation in hematopoietic cell lines. Leuk Res. 32: 811-9. 7. Drewniak, A. <i>et al.</i> (2009) Changes in gene expression of granulocytes during in vivo granulocyte colony-stimulating factor/dexamethasone mobilization for transfusion purposes. Blood. 113: 5979-98. 8. Jerke, U. <i>et al.</i> (2011) Complement receptor Mac-1 is an adaptor for NB1 (CD177)-mediated PR3-ANCA neutrophil activation. J Biol Chem. 286 (9): 7070-81. 9. Pliyev, B.K. & Menshikov, M. (2012) Comparative evaluation of the role of the adhesion molecule CD177 in neutrophil interactions with platelets and endothelium. Eur J Haematol. 89 (3): 236-44.

10. Gabillet, J. *et al.* (2012) Proteinase 3, the autoantigen in granulomatosis with polyangiitis, associates with calreticulin on apoptotic neutrophils, impairs macrophage phagocytosis, and promotes inflammation. [J Immunol. 189: 2574-83.](#)
11. Johansson, Å.C. *et al.* (2016) Impaired phagocytosis and reactive oxygen species production in phagocytes is associated with systemic vasculitis. [Arthritis Res Ther. 18 \(1\): 92.](#)
12. Onodera, R. *et al.* (2017) Anti-human neutrophil antigen-1a, -1b, and -2 antibodies in neonates and children with immune neutropenias analyzed by extracted granulocyte antigen immunofluorescence assay. [Transfusion. 57 \(11\): 2586-94.](#)
13. Bayat, B. *et al.* (2021) Transfusion of Target Antigens to Pre-Immunized Recipients: A New Mechanism in Transfusion-Related Acute Lung Injury. [Blood Adv. bloodadvances.2020003843.](#)

Storage This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.

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/MCA2045F>
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](https://www.bio-rad-antibodies.com/datasheets)

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