

## Datasheet: MCA2045APC

**BATCH NUMBER INN1701**

<b>Description:</b>	MOUSE ANTI HUMAN CD177:APC
<b>Specificity:</b>	CD177
<b>Format:</b>	APC
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MEM-166
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	100 TESTS

### 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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. It is recommended that the user titrates the antibody 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 Allophycocyanin (APC) - lyophilised

#### Reconstitution

Reconstitute with 1ml distilled water

#### Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
APC	650	661

#### Preparation

Purified IgG prepared by affinity chromatography on Protein A

#### Buffer Solution

Phosphate buffered saline

<b>Preservative</b>	0.09% Sodium Azide
<b>Stabilisers</b>	1% Bovine Serum Albumin 5% Sucrose
<b>Approx. Protein Concentrations</b>	IgG concentration 0.1mg/ml
<b>Immunogen</b>	Human granulocytes.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">Q8N6Q3</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">57126</a> CD177    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	NB1, PRV1
<b>RRID</b>	AB_2072601
<b>Specificity</b>	<b>Mouse anti Human CD177 antibody, clone MEM-166</b> 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 ( <a href="#">Lalezari et al. 1971</a> ).
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
<b>References</b>	<ol style="list-style-type: none"> <li>Caruccio, L. <i>et al.</i> (2003) Expression of human neutrophil antigen-2a (NB1) is increased in pregnancy. <a href="#">Transfusion. 43 (3): 357-63.</a></li> <li>Kissel, K. <i>et al.</i> (2002) Molecular basis of NB1 (HNA-2a, CD177) deficiency. <a href="#">Blood. 99 (11): 4231-3.</a></li> <li>Jerke, U. <i>et al.</i> (2011) Complement receptor Mac-1 is an adaptor for NB1 (CD177)-mediated PR3-ANCA neutrophil activation. <a href="#">J Biol Chem. 286 (9): 7070-81.</a></li> <li>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. <a href="#">Leuk Res. 32: 811-9.</a></li> <li>Gabillet, J. <i>et al.</i> (2012) Proteinase 3, the autoantigen in granulomatosis with polyangiitis, associates with calreticulin on apoptotic neutrophils, impairs macrophage phagocytosis, and promotes inflammation. <a href="#">J Immunol. 189: 2574-83.</a></li> <li>Drewniak, A. <i>et al.</i> (2008) Granulocyte concentrates: prolonged functional capacity during storage in the presence of phenotypic changes. <a href="#">Haematologica. 93:1058-67.</a></li> <li>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. <a href="#">Blood. 113: 5979-98.</a></li> <li>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). <a href="#">J Biol Chem. 282: 23603-12.</a></li> <li>Johansson, Å.C. <i>et al.</i> (2016) Impaired phagocytosis and reactive oxygen species production in phagocytes is associated with systemic vasculitis. <a href="#">Arthritis Res Ther. 18 (1):</a></li> </ol>

[92.](#)

10. Nishimura, M. *et al.* (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.](#)

11. 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.](#)

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.](#)

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<b>Storage</b>	Prior to reconstitution store at +4°C. After reconstitution store at +4°C. DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #20487 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2045APC">https://www.bio-rad-antibodies.com/SDS/MCA2045APC</a> 20487
<b>Regulatory</b>	For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:APC \(MCA928APC\)](#)

### 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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