Datasheet: MCA2045APC

BATCH NUMBER INN0611

Description:	MOUSE ANTI HUMAN CD177:APC
Specificity:	CD177
Format:	APC
Product Type:	Monoclonal Antibody
Clone:	MEM-166
Isotype:	IgG1
Quantity:	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.

	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

Preservative Stabilisers	0.09% Sodium Azide 1% Bovine Serum Albumin 5% Sucrose
Approx. Protein Concentrations	IgG concentration 0.1mg/ml
Immunogen	Human granulocytes.
External Database Links	**UniProt:** Q8N6Q3 Related reagents **Entrez Gene:** 57126 CD177 Related reagents
Synonyms	NB1, PRV1
RRID	AB_2072601
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 10ul of the suggested working dilution to label 10^6 cells in 100ul.

References

1. Caruccio, L. *et al.* (2003) Expression of human neutrophil antigen-2a (NB1) is increased in pregnancy. Transfusion. 43 (3): 357-63.
2. Kissel, K. *et al.* (2002) Molecular basis of NB1 (HNA-2a, CD177) deficiency. Blood. 99 (11): 4231-3.
3. Jerke, U. *et al.* (2011) Complement receptor Mac-1 is an adaptor for NB1 (CD177)-mediated PR3-ANCA neutrophil activation. J Biol Chem. 286 (9): 7070-81.
4. Dillon, M. *et al.* (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.
5. 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.
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7. Drewniak, A. *et al.* (2009) Changes in gene expression of granulocytes during in vivo granulocyte colony-stimulating factor/dexamethasone mobilization for transfusion purposes. Blood. 113: 5979-98.
8. Sachs, U.J. *et al.* (2007) The neutrophil-specific antigen CD177 is a counter-receptor for platelet endothelial cell adhesion molecule-1 (CD31). J Biol Chem. 282: 23603-12.
9. 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):

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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.

Storage	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.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #20487 available at: https://www.bio-rad-antibodies.com/SDS/MCA2045APC 20487
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:APC (MCA928APC)

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A)
HUMAN SEROBLOCK (BUF070B)

North & South America Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com
Worldwide Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com
Europe Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M375407:210104'

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