

Datasheet: MCA1270APCT

Description:	MOUSE ANTI HUMAN CD13:APC
Specificity:	CD13
Other names:	AMINOPEPTIDASE N
Format:	APC
Product Type:	Monoclonal Antibody
Clone:	WM15
Isotype:	IgG1
Quantity:	25 TESTS

Product Details

RRID AB_2056597

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. 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

Species Cross Reactivity Reacts with: Rhesus Monkey
N.B. Antibody reactivity and working conditions may vary between species.

Product Form Purified IgG conjugated to Allophycocyanin (APC) - lyophilised

Reconstitution Reconstitute in 0.25 ml distilled water

Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	APC	650	661

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
1% Bovine Serum Albumin
5% Sucrose

Immunogen	Human AML cells.
External Database Links	<p>UniProt: P15144 Related reagents</p> <p>Entrez Gene: 290 ANPEP Related reagents</p>
Synonyms	APN, CD13, PEPN
Fusion Partners	Spleen cells from immunised BALB/c mice where fused with cells of the mouse NS1 myeloma cell line.
Specificity	<p>Mouse anti Human CD13 antibody, clone WM15 recognizes human CD13 also known as aminopeptidase N. CD13 is a single pass type II glycosylated integral membrane protein with a predicted molecular mass of ~110 kDa and an apparent molecular mass of ~150 kDa expressed by granulocytes, monocytes, fibroblasts, endothelial cells and by myeloid leukaemia cells (Bradstock et al. 1985). CD13 acts as a major cell surface receptor for group 1 coronaviruses (Breslin et al. 2003) which bind to a critical sequence encompassing amino acid residues 288-295 (Kolb et al. 1997).</p> <p>CD13 functions as an aminopeptidase enzyme, a metalloprotease present as both a membrane bound form and also a soluble aminopeptidase N.</p> <p>Mouse anti Human CD13, clone WM15 inhibits infection of cells by human coronavirus (Lachance et al. 1998) but not hepatitis C virus (Koutsoudakis et al. 2006) and inhibits aminopeptidase N activity of the CD13 molecule (Asmun et al. 1992)</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells or 100ul whole blood
References	<ol style="list-style-type: none"> Bradstock, K.F. <i>et al.</i> (1985) Human myeloid differentiation antigens identified by monoclonal antibodies: expression on leukemic cells. Pathology. 17 (3): 392-9. Bradstock, K.F. <i>et al.</i> (1985) Myeloid progenitor surface antigen identified by monoclonal antibody. Br J Haematol. 61 (1): 11-20. Favaloro, E.J. <i>et al.</i> (1988) Further characterization of human myeloid antigens (gp160,95; gp150; gp67): investigation of epitopic heterogeneity and non-haemopoietic distribution using panels of monoclonal antibodies belonging to CD-11b, CD-13 and CD-33. Br J Haematol. 69 (2): 163-71. Favaloro, E.J. (1991) CD-13 (gp150; aminopeptidase-N): co-expression on endothelial and haemopoietic cells with conservation of functional activity. Immunol Cell Biol. 69 (Pt 4): 253-60. Favaloro, E.J. <i>et al.</i> (1993) The hepatobiliary disease marker serum alanine aminopeptidase predominantly comprises an isoform of the haematological myeloid differentiation antigen and leukaemia marker CD-13/gp150. Clin Chim Acta. 220 (1): 81-90. Favaloro, E.J. <i>et al.</i> (1993) CD13 (GP150; aminopeptidase-N): predominant functional activity in blood is localized to plasma and is not cell-surface associated. Exp Hematol. 21 (13): 1695-701. Tavoosidana, G. <i>et al.</i> (2011) Multiple recognition assay reveals prostasomes as promising plasma biomarkers for prostate cancer. Proc Natl Acad Sci U S A. 108: 8809-14. Gredmark, S. <i>et al.</i> (2004) Human Cytomegalovirus Induces Inhibition of Macrophage Differentiation by Binding to Human Aminopeptidase N/CD13 J Immunol. 173: 4897-907 Grzywacz, B. <i>et al.</i> (2011) Natural killer-cell differentiation by myeloid progenitors. Blood. 117: 3548-58. Stolzing, A. <i>et al.</i> (2008) Age-related changes in human bone marrow-derived mesenchymal

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Storage

Prior to reconstitution store at +4°C. Following reconstitution store at +4°C.

DO NOT FREEZE.

This product should be stored undiluted. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life

12 months from date of reconstitution.

Health And Safety Information

Material Safety Datasheet documentation #10075 available at:
10075: <https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf>

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

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

Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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