

Datasheet: MCA1270A647T

Description:	MOUSE ANTI HUMAN CD13:Alexa Fluor® 647
Specificity:	CD13
Other names:	AMINOPEPTIDASE N
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	WM15
Isotype:	IgG1
Quantity:	25 TESTS/0.25ml

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. 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 Alexa Fluor® 647 - liquid								
Max Ex/Em	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>Alexa Fluor®647</td> <td>650</td> <td>665</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	Alexa Fluor®647	650	665		
Fluorophore	Excitation Max (nm)	Emission Max (nm)							
Alexa Fluor®647	650	665							
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant								
Buffer Solution	Phosphate buffered saline								
Preservative	0.09% Sodium Azide								
Stabilisers	1% Bovine Serum Albumin								
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml								
Immunogen	Human AML cells.								

**External Database
Links**

UniProt:

[P15144](#) [Related reagents](#)

Entrez Gene:

[290](#) ANPEP [Related reagents](#)

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

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](#)).

CD13 functions as an [aminopeptidase](#) enzyme, a metalloprotease present as both a membrane bound form and also a soluble aminopeptidase N.

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](#))

Flow Cytometry

Use 10ul of the suggested working dilution to label 10⁶ cells or 100ul whole blood

References

1. Bradstock, K.F. *et al.* (1985) Human myeloid differentiation antigens identified by monoclonal antibodies: expression on leukemic cells. [Pathology. 17 \(3\): 392-9.](#)
2. Bradstock, K.F. *et al.* (1985) Myeloid progenitor surface antigen identified by monoclonal antibody. [Br J Haematol. 61 \(1\): 11-20.](#)
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13. Lassnig, C. *et al.* (2005) Development of a transgenic mouse model susceptible to human coronavirus 229E. [Proc Natl Acad Sci U S A. 102 \(23\): 8275-80.](#)
14. Thielitz, A. *et al.* (2004) Identification of extra- and intracellular alanyl aminopeptidases as new targets to modulate keratinocyte growth and differentiation. [Biochem Biophys Res Commun. 321 \(4\): 795-801.](#)
15. McCormack, E. *et al.* (2013) Multiplexed mAbs: a new strategy in preclinical time-domain imaging of acute myeloid leukemia. [Blood. 121 \(7\): e34-42.](#)
16. Fiddler, C.A. *et al.* (2016) The Aminopeptidase CD13 Induces Homotypic Aggregation in Neutrophils and Impairs Collagen Invasion. [PLoS One. 11 \(7\): e0160108.](#)

Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life

18 months from date of despatch.

Acknowledgements

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Health And Safety Information

Material Safety Datasheet documentation #10041 available at: 10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA928A647\)](#)

Recommended Useful Reagents

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

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

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