

Datasheet: MCA2183PET

BATCH NUMBER INN1607

Description:	RAT ANTI MOUSE CD13:RPE
Specificity:	CD13
Other names:	AMINOPEPTIDASE N
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	R3-63
Isotype:	lgG2a
Quantity:	25 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. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their system using appropriate negative/positive controls.

Target Species	Mouse					
Product Form	Purified IgG conjuga	Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized				
Reconstitution	Reconstitute in 0.25	ml disilled water				
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)			
	RPE 488nm laser	496	578			
Preparation	Purified IgG prepare supernatant	d by affinity chromatog	raphy on Protein G			
Buffer Solution	Phosphate buffered	saline				
Preservative	0.09% Sodium Azide	2				
Stabilisers	1% Bovine Serum Albumin					

	570 Guorose			
Immunogen	Mouse intestinal APN			
External Database Links	UniProt: P97449 Related reagents Entrez Gene: 16790 Anpep Related reagents			
Synonyms	Lap1, Lap-1			
RRID	AB_1100680			
Fusion Partners	Spleen cells from immunized mice were fused with cells of the IR983F rat myeloma cell line.			
Specificity	Rat anti Mouse CD13 antibody, clone R3-63 recognizes mouse aminopeptidase N (APN), a cell surface protein homologous with human CD13. In the mouse, CD13 is a non-covalently linked homodimer of approximately 150 kDa subunits expressed by a variety of cells including monocytes, macrophages, dendritic cell and veiled cells. Rat anti Mouse CD13 antibody, clone R3-63 has been reported to block mouse APN enzyme activity (Hansen et al. 1993).			
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul. The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity fc receptors. This may be reduced by using SeroBlock FcR (BUF041A/B).			
References	1. Kamoun, W.S. <i>et al.</i> (2009) Edema control by cediranib, a vascular endothelial growth factor receptor-targeted kinase inhibitor, prolongs survival despite persistent brain tumor growth in mice. J Clin Oncol. 27: 2542-52. 2. Hansen, A.S. <i>et al.</i> (1993) A mouse aminopeptidase N is a marker for antigenpresenting cells and appears to be co-expressed with major histocompatibility complex class II molecules. Eur J Immunol. 23 (9): 2358-64. 3. Larsen, S.L. <i>et al.</i> (1996) T cell responses affected by aminopeptidase N (CD13)-mediated trimming of major histocompatibility complex class II-bound peptides. J Exp Med. 184 (1): 183-9. 4. Rangel, R. <i>et al.</i> (2007) Impaired angiogenesis in aminopeptidase N-null mice. Proc Natl Acad Sci U S A. 104: 4588-93. 5. Lahdenranta, J. <i>et al.</i> (2007) Treatment of hypoxia-induced retinopathy with targeted proapoptotic peptidomimetic in a mouse model of disease. FASEB J. 21: 3272-8. 6. Li, P. <i>et al.</i> (2010) Use of adenoviral vectors to target chemotherapy to tumor vascular endothelial cells suppresses growth of breast cancer and melanoma. Mol Ther. 18: 921-8. 7. van Deventer, H.W. <i>et al.</i> (2008) C-C chemokine receptor 5 on pulmonary fibrocytes facilitates migration and promotes metastasis via matrix metalloproteinase 9. Am J Pathol			

5%

Sucrose

173: 253-64.

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- 9. Ozawa, M.G. *et al.* (2008) Beyond receptor expression levels: the relevance of target accessibility in ligand-directed pharmacodelivery systems. <u>Trends Cardiovasc Med. 18:</u> 126-32.
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- 14. Ridder, D.A. *et al.* (2015) Brain endothelial TAK1 and NEMO safeguard the neurovascular unit. <u>J Exp Med. 212 (10): 1529-49.</u>
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- 16. Körbelin J *et al.* (2016) A brain microvasculature endothelial cell-specific viral vector with the potential to treat neurovascular and neurological diseases. <u>EMBO Mol Med. 8 (6):</u> 609-25.
- 17. Zotz, J.S. et al. (2016) CD13/aminopeptidase N is a negative regulator of mast cell activation. FASEB J. 30 (6): 2225-35.
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- 19. Yanagida, K. *et al.* (2017) Size-selective opening of the blood-brain barrier by targeting endothelial sphingosine 1-phosphate receptor 1. <u>Proc Natl Acad Sci U S A. 114 (17):</u> 4531-6.
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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. 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/MCA2183PET

 Regulatory
 For research purposes only

Related Products

Recommended Negative Controls

RAT IgG2a NEGATIVE CONTROL:RPE (MCA1212PE)

Recommended Useful Reagents

MOUSE SEROBLOCK FcR (BUF041A)
MOUSE SEROBLOCK FcR (BUF041B)

 North & South
 Tel: +1 800 265 7376
 Worldwide
 Tel: +44 (0)1865 852 700
 Europe
 Tel: +49 (0) 89 8090 95 21

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 Fax: +1 919 878 3751
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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 'M375427:210104'

Printed on 19 Jan 2024

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