

## Datasheet: MCA2183T

**BATCH NUMBER 149351**

|                      |                     |
|----------------------|---------------------|
| <b>Description:</b>  | RAT ANTI MOUSE CD13 |
| <b>Specificity:</b>  | CD13                |
| <b>Other names:</b>  | AMINOPEPTIDASE N    |
| <b>Format:</b>       | Purified            |
| <b>Product Type:</b> | Monoclonal Antibody |
| <b>Clone:</b>        | R3-63               |
| <b>Isotype:</b>      | IgG2a               |
| <b>Quantity:</b>     | 25 µg               |

## 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                 | ▪   |    |                | 1/200 - 1/1000     |
| Immunohistology - Frozen       | ▪   |    |                |                    |
| Immunohistology - Paraffin (1) | ▪   |    |                |                    |
| ELISA                          |     |    | ▪              |                    |
| Immunoprecipitation            |     |    | ▪              |                    |
| Western Blotting               |     |    | ▪              |                    |
| Immunofluorescence             | ▪   |    |                |                    |

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.

**(1) This product requires antigen retrieval using heat treatment prior to staining of paraffin sections. Sodium citrate buffer pH 6.0 is recommended for this purpose. See [Bertilaccio et al.](#) for details.**

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|-----------------------|--|
| <b>Target Species</b> | Mouse  |
| <b>Product Form</b>   | Purified IgG - liquid  |
| <b>Preparation</b>    | Purified IgG prepared by affinity chromatography on Protein G. |

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|---------------------------------------|--|
| <b>Buffer Solution</b>                | Phosphate buffered saline  |
| <b>Preservative Stabilisers</b>       | 0.09% Sodium Azide   |
| <b>Carrier Free</b>                   | Yes  |
| <b>Approx. Protein Concentrations</b> | IgG concentration 1.0 mg/ml  |
| <b>Immunogen</b>                      | Mouse intestinal APN   |
| <b>External Database Links</b>        | <p><b>UniProt:</b><br/> <a href="#">P97449</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b><br/> <a href="#">16790</a> Anpep    <a href="#">Related reagents</a></p>   |
| <b>Synonyms</b>                       | Lap1, Lap-1  |
| <b>RRID</b>                           | AB_1100679   |
| <b>Fusion Partners</b>                | Spleen cells from immunized mice were fused with cells of the IR983F rat myeloma cell line.  |
| <b>Specificity</b>                    | <p><b>Rat anti Mouse CD13 antibody, clone R3-63</b> 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.</p> <p>Rat anti Mouse CD13 antibody, clone R3-63 has been reported to block mouse APN enzyme activity (<a href="#">Hansen et al. 1993</a>).</p>   |
| <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>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. <a href="#">J Clin Oncol. 27: 2542-52.</a></li> <li>2. Hansen, A.S. <i>et al.</i> (1993) A mouse aminopeptidase N is a marker for antigen-presenting cells and appears to be co-expressed with major histocompatibility complex class II molecules. <a href="#">Eur J Immunol. 23 (9): 2358-64.</a></li> <li>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. <a href="#">J Exp Med. 184 (1): 183-9.</a></li> <li>4. Rangel, R. <i>et al.</i> (2007) Impaired angiogenesis in aminopeptidase N-null mice. <a href="#">Proc Natl Acad Sci U S A. 104: 4588-93.</a></li> <li>5. Lahdenranta, J. <i>et al.</i> (2007) Treatment of hypoxia-induced retinopathy with targeted proapoptotic peptidomimetic in a mouse model of disease. <a href="#">FASEB J. 21: 3272-8.</a></li> </ol> |

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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. [EMBO Mol Med. 8 \(6\): 609-25.](#)
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18. Sung, S.J. *et al.* (2017) Proximal Tubule CD73 Is Critical in Renal Ischemia-Reperfusion Injury Protection. [J Am Soc Nephrol. 28 \(3\): 888-902.](#)
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**Storage**

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

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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| <b>Guarantee</b> | 12 months from date of despatch |
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| <b>Health And Safety Information</b> | Material Safety Datasheet documentation #10040 available at:<br><a href="https://www.bio-rad-antibodies.com/SDS/MCA2183T">https://www.bio-rad-antibodies.com/SDS/MCA2183T</a><br>10040 |
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|-------------------|----------------------------|
| <b>Regulatory</b> | For research purposes only |
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## Related Products

### Recommended Secondary Antibodies

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|--|---|
| Rabbit Anti Rat IgG (STAR16...)                | <a href="#">DyLight@800</a>   |
| Rabbit Anti Rat IgG (STAR17...)                | <a href="#">FITC</a>  |
| Goat Anti Rat IgG (STAR72...)                  | <a href="#">HRP</a>   |
| Goat Anti Rat IgG (STAR69...)                  | <a href="#">FITC</a>  |
| Goat Anti Rat IgG (STAR73...)                  | <a href="#">RPE</a>   |
| Rabbit Anti Rat IgG (STAR21...)                | <a href="#">HRP</a>   |
| Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...) | <a href="#">DyLight@550</a> , <a href="#">DyLight@650</a> , <a href="#">DyLight@800</a> |
| Goat Anti Rat IgG (STAR131...)                 | <a href="#">Alk. Phos.</a> , <a href="#">Biotin</a>                                     |

### Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL \(MCA1212\)](#)

### Recommended Useful Reagents

[ANTIGEN RETRIEVAL BUFFER, pH8.0 \(BUF025A\)](#)

|                                  |   |                  |   |               |   |
|----------------------------------|---|------------------|---|---------------|---|
| <b>North &amp; South America</b> | Tel: +1 800 265 7376<br>Fax: +1 919 878 3751<br>Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a> | <b>Worldwide</b> | Tel: +44 (0)1865 852 700<br>Fax: +44 (0)1865 852 739<br>Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a> | <b>Europe</b> | Tel: +49 (0) 89 8090 95 21<br>Fax: +49 (0) 89 8090 95 50<br>Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a> |
|----------------------------------|---|------------------|---|---------------|---|

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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