

## Datasheet: MCA2183A647T

|                      |                                      |
|----------------------|--------------------------------------|
| <b>Description:</b>  | RAT ANTI MOUSE CD13:Alexa Fluor® 647 |
| <b>Specificity:</b>  | CD13                                 |
| <b>Other names:</b>  | AMINOPEPTIDASE N                     |
| <b>Format:</b>       | ALEXA FLUOR® 647                     |
| <b>Product Type:</b> | Monoclonal Antibody                  |
| <b>Clone:</b>        | R3-63                                |
| <b>Isotype:</b>      | IgG2a                                |
| <b>Quantity:</b>     | 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](http://www.bio-rad-antibodies.com/protocols).

|                | Yes | No | Not Determined | Suggested Dilution |
|----------------|-----|----|----------------|--------------------|
| Flow Cytometry | ▪   |    |                | Neat - 1/5         |

Where this product 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 product for use in their own system using appropriate negative/positive controls.

|                                       |   |                            |                          |
|---------------------------------------|---|----------------------------|--------------------------|
| <b>Target Species</b>                 | Mouse   |                            |                          |
| <b>Product Form</b>                   | Purified IgG conjugated to Alexa Fluor® 647 - liquid  |                            |                          |
| <b>Max Ex/Em</b>                      | <b>Fluorophore</b>  | <b>Excitation Max (nm)</b> | <b>Emission Max (nm)</b> |
|                                       | Alexa Fluor®647   | 650                        | 665                      |
| <b>Preparation</b>                    | Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant |                            |                          |
| <b>Buffer Solution</b>                | Phosphate buffered saline   |                            |                          |
| <b>Preservative</b>                   | 0.09% sodium azide (NaN <sub>3</sub> )  |                            |                          |
| <b>Stabilisers</b>                    | 1% bovine serum albumin   |                            |                          |
| <b>Approx. Protein Concentrations</b> | IgG concentration 0.05 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_1100678  |
| <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 <i>et al.</i> 1993</a>).</p>   |
| <b>Flow Cytometry</b>          | Use 10µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100µl. The Fc region of monoclonal antibodies may bind to cells expressing low affinity Fc receptors. This may be reduced by using SeroBlock FcR ( <a href="#">BUF041A/BUF041B</a> ).  |
| <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> <li>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. <a href="#">Mol Ther. 18: 921-8.</a></li> <li>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. <a href="#">Am J Pathol. 173: 253-64.</a></li> <li>8. Gabrilovac, J. <i>et al.</i> (2011) Expression, regulation and functional activities of aminopeptidase N (EC 3.4.11.2; APN; CD13) on murine macrophage J774 cell line.</li> </ol> |

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**Storage**

This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in

frost-free freezers is not recommended. This product is photosensitive and should be protected from light.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2183A647T>  
10041

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**Regulatory** For research purposes only

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## Related Products

### Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA1212A647\)](#)

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto: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](mailto: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](mailto:antibody_sales_de@bio-rad.com)

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