

## Datasheet: MCA708

**BATCH NUMBER 161332**

|                      |                        |
|----------------------|------------------------|
| <b>Description:</b>  | MOUSE ANTI HUMAN CD103 |
| <b>Specificity:</b>  | CD103                  |
| <b>Format:</b>       | Purified               |
| <b>Product Type:</b> | Monoclonal Antibody    |
| <b>Clone:</b>        | 2G5.1                  |
| <b>Isotype:</b>      | IgG2a                  |
| <b>Quantity:</b>     | 0.2 mg                 |

## 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               | ▪   |    |                | 1/50 - 1/100       |
| Immunohistology - Frozen (1) | ▪   |    |                | 1/50 - 1/100       |
| Immunohistology - Paraffin   |     | ▪  |                |                    |
| 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 own system using appropriate negative/positive controls.

**(1)The epitope recognised by this antibody is reported to be sensitive to formaldehyde fixation and tissue processing. Bio-Rad recommends the use of acetone fixation for frozen sections.**

### Target Species

Human

### Species Cross Reactivity

Reacts with: Cynomolgus monkey, Rhesus Monkey

**N.B.** Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

|  |   |
|--|---|
| <b>Product Form</b>                      | Purified IgG - liquid   |
| <b>Preparation</b>                       | Purified IgG prepared by affinity chromatography on Protein A from ascites  |
| <b>Buffer Solution</b>                   | Phosphate buffered saline   |
| <b>Preservative</b>                      | <0.1% Sodium Azide (NaN <sub>3</sub> )  |
| <b>Stabilisers</b>                       | 0.5% Bovine Serum Albumin   |
| <b>Approx. Protein Concentrations</b>    | IgG concentration 1.0 mg/ml   |
| <b>Immunogen</b>                         | Human intestinal lymphocytes  |
| <b>External Database Links</b>           | <p><b>UniProt:</b><br/> <a href="#">P38570</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b><br/> <a href="#">3682</a>    ITGAE    <a href="#">Related reagents</a></p>  |
| <b>RRID</b>                              | AB_321984   |
| <b>Fusion Partners</b>                   | Spleen cells from immunized BALB/c mice were fused with cells of the NS1 mouse myeloma cell line  |
| <b>Specificity</b>                       | <p><b>Mouse anti Human CD103 antibody, clone 2G5.1</b> recognizes the human CD103 cell surface antigen, also known as the alpha<sup>E</sup> integrin, HML-1 antigen, Mucosal lymphocyte 1 antigen or Integrin alpha-E. CD103 is a 1161 amino acid, ~130 kDa single pass type 1 transmembrane glycoprotein.</p> <p>Mouse anti Human CD103 antibody, clone 2G5.1 reacts with various subsets of human intra-epithelial lymphocytes:- 40% of lamina propria T-cells; 30% of mesenteric lymphoblasts and some lymphocytes from other mucosa. It recognises less than 0.1% bone marrow cells and less than 0.7% PBL.</p>                                   |
| <b>Flow Cytometry</b>                    | Use 10ul of the suggested working dilution to label 5 x 10 <sup>5</sup> cells in 100ul.   |
| <b>Histology Positive Control Tissue</b> | Intestine   |
| <b>References</b>                        | <ol style="list-style-type: none"> <li>1. Cerf-Bensussan, N. <i>et al.</i> (1986) A monoclonal antibody specific for rat intestinal lymphocytes. <a href="#">J Immunol. 136 (1): 76-82.</a></li> <li>2. Cerf-Bensussan, N. <i>et al.</i> (1987) A monoclonal antibody (HML-1) defining a novel membrane molecule present on human intestinal lymphocytes. <a href="#">Eur J Immunol. 17 (9): 1279-85.</a></li> <li>3. Kutleša, S. <i>et al.</i> (2002) E-cadherin-mediated interactions of thymic epithelial cells with CD103+ thymocytes lead to enhanced thymocyte cell proliferation. <a href="#">J Cell Sci. 115 (Pt 23): 4505-15.</a></li> </ol> |

4. Presicce P *et al.* (2012) Myeloid dendritic cells isolated from tissues of SIV-infected Rhesus macaques promote the induction of regulatory T cells. [AIDS. 26 \(3\): 263-73.](#)
5. Swan, Z.D. *et al.* (2016) Macrophage accumulation in gut mucosa differentiates AIDS from chronic SIV infection in rhesus macaques. [Eur J Immunol. 46 \(2\): 446-54.](#)
6. Nugent, J.L. *et al.* (2021) A nonhuman primate model of vertical sleeve gastrectomy facilitates mechanistic and translational research in human obesity. [iScience. 24 \(12\): 103421.](#)

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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.

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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/MCA708>  
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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...) [HRP](#)  
 Rabbit Anti Mouse IgG (STAR12...) [RPE](#)  
 Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)  
 Goat Anti Mouse IgG (STAR76...) [RPE](#)  
 Rabbit Anti Mouse IgG (STAR13...) [HRP](#)  
 Goat Anti Mouse IgG (STAR70...) [FITC](#)  
 Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight@488](#), [DyLight@550](#),  
[DyLight@650](#), [DyLight@680](#), [DyLight@800](#),  
[FITC](#), [HRP](#)  
 Rabbit Anti Mouse IgG (STAR9...) [FITC](#)  
 Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

### Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL \(MCA929\)](#)

|                                  |   |                  |   |               |   |
|----------------------------------|---|------------------|---|---------------|---|
| <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)  
'M389727:210806'

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