

## Datasheet: MCA4703PE

**BATCH NUMBER 151208**

|                      |                         |
|----------------------|-------------------------|
| <b>Description:</b>  | RAT ANTI MOUSE CD44:RPE |
| <b>Specificity:</b>  | CD44                    |
| <b>Other names:</b>  | H-CAM, PGP-1            |
| <b>Format:</b>       | RPE                     |
| <b>Product Type:</b> | Monoclonal Antibody     |
| <b>Clone:</b>        | IM7                     |
| <b>Isotype:</b>      | IgG2b                   |
| <b>Quantity:</b>     | 0.1 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 | ▪   |    |                | 1/5 - 1/10         |

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.

#### Target Species

Mouse

#### Species Cross Reactivity

Reacts with: Human, Baboon, Cynomolgus monkey, Rhesus Monkey, Horse, Bovine, Pig, Dog, Cat, Ferret

Based on sequence similarity, is expected to react with: Mustelid

**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.

#### Product Form

Purified IgG conjugated to R. Phycoerythrin (RPE) - liquid

#### Max Ex/Em

| Fluorophore     | Excitation Max (nm) | Emission Max (nm) |
|-----------------|---------------------|-------------------|
| RPE 488nm laser | 496                 | 578               |

#### Preparation

Purified IgG prepared by affinity chromatography

|                                       |   |
|---------------------------------------|---|
| <b>Buffer Solution</b>                | Phosphate buffered saline   |
| <b>Preservative Stabilisers</b>       | 0.09% Sodium Azide (NaN <sub>3</sub> )  |
| <b>Approx. Protein Concentrations</b> | IgG concentration 0.2 mg/ml   |
| <b>Immunogen</b>                      | Dexamethasone-induced myeloid leukemia M1 cells.  |
| <b>External Database Links</b>        | <p><b>UniProt:</b><br/> <a href="#">P15379</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b><br/> <a href="#">12505</a> Cd44    <a href="#">Related reagents</a></p>   |
| <b>Synonyms</b>                       | Ly-24   |
| <b>Specificity</b>                    | <p><b>Rat anti Mouse CD44 antibody, clone IM7</b> recognizes CD44, also known as H-CAM, HUTCH and lymphocyte antigen 24 (Ly-24).</p> <p>CD44 is a cell surface receptor for hyaluronic acid, although it can also interact with other ligands such as collagens and matrix metalloproteinases. This protein plays a role in a variety of cellular functions, such as adhesion, lymphocyte activation and lymph node homing. It is also involved in cell migration and plays a role in tumor metastasis. CD44 has many distinct isoforms responsible for its functional diversity.</p> <p>Rat anti Mouse CD44 antibody, clone IM7 recognizes all isoforms of CD44 and has been reported to inhibit a delayed-type hypersensitivity response <i>in vivo</i> and to induce complement-mediated cytotoxicity.</p>   |
| <b>Flow Cytometry</b>                 | Use 10ul of the suggested working dilution to label 1x10 <sup>6</sup> cells in 100ul  |
| <b>References</b>                     | <ol style="list-style-type: none"> <li>1. Camp, R.L. <i>et al.</i> (1993) CD44 is necessary for optimal contact allergic responses but is not required for normal leukocyte extravasation. <a href="#">J Exp Med. 178: 497-507.</a></li> <li>2. Brocke, S. <i>et al.</i> (1999) Antibodies to CD44 and integrin alpha4, but not L-selectin, prevent central nervous system inflammation and experimental encephalomyelitis by blocking secondary leukocyte recruitment. <a href="#">Proc Natl Acad Sci U S A. 96: 6896-901.</a></li> <li>3. Lesley, J. <i>et al.</i> (1992) Requirements for hyaluronic acid binding by CD44: a role for the cytoplasmic domain and activation by antibody. <a href="#">J Exp Med. 175: 257-66.</a></li> <li>4. Katoh, S. <i>et al.</i> (2003) A role for CD44 in an antigen-induced murine model of pulmonary eosinophilia. <a href="#">J Clin Invest. 111: 1563-70.</a></li> <li>5. Lesley, J. <i>et al.</i> (2003) Hyaluronan binding by cell surface CD44. <a href="#">J Biol Chem. 275: 26967-75.</a></li> <li>6. Morrison, H. <i>et al.</i> (2001) The NF2 tumor suppressor gene product, merlin, mediates contact inhibition of growth through interactions with CD44. <a href="#">Genes Dev. 15: 968-80.</a></li> <li>7. Martín-Villar, E. <i>et al.</i> (2010) Podoplanin associates with CD44 to promote directional</li> </ol> |

cell migration. [Mol Biol Cell. 21: 4387-99.](#)

8. Ariyoshi, W. *et al.* (2010) Internalization of aggrecan G1 domain neoepitope ITEGE in chondrocytes requires CD44. [J Biol Chem. 285: 36216-24.](#)

9. Rutigliano, J.A. *et al.* (2008) Screening monoclonal antibodies for cross-reactivity in the ferret model of influenza infection. [J Immunol Methods. 336: 71-7.](#)

10. Maeda, S. *et al.* (2021) NAFLD exacerbates cholangitis and promotes cholangiocellular carcinoma in mice. [Cancer Sci. 112 \(4\): 1471-80.](#)

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**Storage**

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.

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**Guarantee**

12 months from date of despatch

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**Health And Safety Information**

Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA4703PE>  
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**Regulatory**

For research purposes only

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