

## Datasheet: MCA4703

<b>Description:</b>	RAT ANTI MOUSE CD44
<b>Specificity:</b>	CD44
<b>Other names:</b>	H-CAM, PGP-1
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	IM7
<b>Isotype:</b>	IgG2b
<b>Quantity:</b>	0.25 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	▪			1/20 - 1/50
Immunohistology - Frozen	▪			
Immunohistology - Paraffin	▪			
ELISA	▪			
Immunoprecipitation	▪			
Western Blotting			▪	
Functional Assays	▪			

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 - liquid

<b>Preparation</b>	Purified IgG prepared by affinity chromatography
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	<0.1% Sodium Azide (NaN <sub>3</sub> )
<b>Approx. Protein Concentrations</b>	IgG concentration 0.5mg/ml
<b>Immunogen</b>	Dexamethasone-induced myeloid leukemia M1 cells.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P15379</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">12505</a> Cd44    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	Ly-24
<b>RRID</b>	AB_2076194
<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. 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>2. 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>3. 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>4. 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>5. Mckallip, R.J. <i>et al.</i> (2002) Role of CD44 in activation-induced cell death: CD44-deficient mice exhibit enhanced T cell response to conventional and superantigens.</li> </ol>

[Int Immunol. 14 \(9\): 1015-26.](#)

6. Lesley, J. *et al.* (2003) Hyaluronan binding by cell surface CD44. [J Biol Chem. 275: 26967-75.](#)

7. Katoh, S. *et al.* (2003) A role for CD44 in an antigen-induced murine model of pulmonary eosinophilia. [J Clin Invest. 111: 1563-70.](#)

8. 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.](#)

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

10. Martín-Villar, E. *et al.* (2010) Podoplanin associates with CD44 to promote directional cell migration. [Mol Biol Cell. 21: 4387-99.](#)

11. Hartley, A.N. & Tarleton, R.L. (2015) Chemokine receptor 7 (CCR7)-expression and IFN $\gamma$  production define vaccine-specific canine T-cell subsets. [Vet Immunol Immunopathol. 164 \(3-4\): 127-36.](#)

12. Zhu, C. *et al.* (2020) Antinociceptive effect of intrathecal injection of miR-9-5p modified mouse bone marrow mesenchymal stem cells on a mouse model of bone cancer pain. [J Neuroinflammation. 17 \(1\): 85.](#)

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

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<b>Storage</b>	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.
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Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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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: <a href="https://www.bio-rad-antibodies.com/SDS/MCA4703">https://www.bio-rad-antibodies.com/SDS/MCA4703</a> 10040
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<b>Regulatory</b>	For research purposes only
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## Related Products

### Recommended Secondary Antibodies

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

### Recommended Useful Reagents

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

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

**Worldwide**

Tel: +44 (0)1865 852 700

**Europe**

Tel: +49 (0) 89 8090 95 21

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

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

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)

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