

Datasheet: MCA4703PE

BATCH NUMBER 165804

Description:	RAT ANTI MOUSE CD44:RPE
Specificity:	CD44
Other names:	H-CAM, PGP-1
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	IM7
Isotype:	lgG2b
Quantity:	0.1 mg

Mouse

Dog, Cat, Ferret

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.

	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.

Species	Cross

Reactivity

Target Species

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

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 conjug	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 prepare	ed by affinity chromatog	ranhy	

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	<0.1% Sodium Azide (NaN ₃)
Approx. Protein Concentrations	IgG concentration 0.2 mg/ml
Immunogen	Dexamethasone-induced myeloid leukemia M1 cells.
External Database Links	UniProt: P15379 Related reagents Entrez Gene: 12505 Cd44 Related reagents
Synonyms	Ly-24
Specificity	Rat anti Mouse CD44 antibody, clone IM7 recognizes CD44, also known as H-CAM, HUTCH and lymphocyte antigen 24 (Ly-24).
	CD44 is a cell surface receptor for hyaluronic acid, although it can also interact with othe 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.
	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.
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 ⁶ cells in 100ul
References	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. <u>J Exp Med. 175: 257-66.</u> 2. Camp, R.L. <i>et al.</i> (1993) CD44 is necessary for optimal contact allergic responses but not required for normal leukocyte extravasation. <u>J Exp Med. 178: 497-507.</u> 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. <u>Proc Natl Acad Sci U S A. 96: 6896-901.</u> 4. Morrison, H. <i>et al.</i> (2001) The NF2 tumor suppressor gene product, merlin, mediates contact inhibition of growth through interactions with CD44. <u>Genes Dev.15: 968-80.</u> 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 Int Immunol. 14 (9): 1015-26. 6. Lesley, J. <i>et al.</i> (2003) Hyaluronan binding by cell surface CD44. <u>J Biol Chem. 275: 26967-75.</u>

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- 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 IFNγ production define vaccine-specific canine T-cell subsets. <u>Vet Immunol Immunopathol.</u> 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. <u>J Neuroinflammation</u>. 17 (1): 85.
- 13. Lara, M.L. *et al.* (2023) Influence of culture conditions on the secretome of mesenchymal stem cells derived from feline adipose tissue: Proteomics approach. Biochimie. 211: 78-86.
- 14. Maeda, S. *et al.* (2021) NAFLD exacerbates cholangitis and promotes cholangiocellular carcinoma in mice. <u>Cancer Sci. 112 (4): 1471-80.</u>

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.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA4703PE 10040
Regulatory	For research purposes only

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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M389548:210806'

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