

Datasheet: MCA532

Description:	MOUSE ANTI HUMAN CD54
Specificity:	CD54
Other names:	ICAM-1
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	84H10
Isotype:	IgG1
Quantity:	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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat - 1/10
Immunohistology - Frozen (1)	▪			1/20 - 1/50
Immunohistology - Paraffin		▪		
ELISA	▪			
Immunoprecipitation	▪			5µg / 10 ⁷ cells
Western Blotting			▪	
Functional Assays (2)	▪			

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.**

(2) **This product contains sodium azide, removal by dialysis is recommended prior to use in functional assays.**

Target Species	Human
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Species Cross Reactivity	Reacts with: Dog N.B. Antibody reactivity and working conditions may vary between species. Cross
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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
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Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
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Buffer Solution	Phosphate buffered saline
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Preservative Stabilisers	<0.1% Sodium Azide (NaN ₃)
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Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
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Immunogen	K562 cell line.
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External Database Links	UniProt: P05362 Related reagents Entrez Gene: 3383 ICAM1 Related reagents
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RRID	AB_321784
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Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the MOPC 315 mouse myeloma cell line.
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Specificity	<p>Mouse anti Human CD54 antibody, clone 84H10 recognizes the D1 domain of ICAM-1.</p> <p>It reacts with the ICAM-1 antigen found in low levels on lymphocytes and strongly expressed on monocytes and granulocytes. This molecule is inducible to high levels by mitogenic lectins on lymphocytes and by IL-1 beta or IFN gamma on other cell types such as fibroblasts and endothelial cells. Mouse anti Human CD54 antibody, clone 84H10 detects an antigen of ~90 kDa.</p> <p>Mouse anti Human CD54 antibody, clone 84H10 has been reported to block ICAM1 mediated cellular adhesion and block binding of LFA-1 and <i>P. falciparum</i> to ICAM-1.</p> <p>Mouse anti Human CD54 antibody, clone 84H10 is routinely tested in flow cytometry on rat splenocytes.</p>
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Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
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References	1. Makgoba, M.W. <i>et al.</i> (1988) ICAM-1 a ligand for LFA-1-dependent adhesion of B, T and myeloid cells. Nature. 331 (6151): 86-8.
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2. Simmons, D. *et al.* (1988) ICAM, an adhesion ligand of LFA-1, is homologous to the neural cell adhesion molecule NCAM. [Nature. 331 \(6157\): 624-7.](#)
3. Damle, N.K. *et al.* (1992) Intercellular adhesion molecule-2, a second counter-receptor for CD11a/CD18 (leukocyte function-associated antigen-1), provides a costimulatory signal for T-cell receptor-initiated activation of human T cells. [J Immunol. 148 \(3\): 665-71.](#)
4. Berendt, A.R. *et al.* (1992) The binding site on ICAM-1 for *Plasmodium falciparum*-infected erythrocytes overlaps, but is distinct from, the LFA-1-binding site. [Cell. 68 \(1\): 71-81.](#)
5. Bergmann-Leitner, E.S. *et al.* (2000) Differential role of Fas/Fas ligand interactions in cytolysis of primary and metastatic colon carcinoma cell lines by human antigen-specific CD8+ CTL. [J Immunol. 164: 4941-54.](#)
6. Salvatierra, A. *et al.* (2001) Anti-thrombin III prevents early pulmonary dysfunction after lung transplantation in the dog. [Circulation. 104: 2975-80.](#)
7. Jonsson, A.S. and Palmblad, J.E. (2001) Effects of ethanol on NF-kappaB activation, production of myeloid growth factors, and adhesive events in human endothelial cells. [J Infect Dis. 184: 761-9.](#)
8. Dyugovskaya, L. *et al.* (2002) Increased adhesion molecules expression and production of reactive oxygen species in leukocytes of sleep apnea patients. [Am J Respir Crit Care Med. 165: 934-9.](#)
9. Chen, P.Y. *et al.* (2015) Endothelial-to-mesenchymal transition drives atherosclerosis progression. [J Clin Invest. 125 \(12\): 4514-28.](#)
10. Salipante, S.J. *et al.* (2016) Recurrent somatic loss of TNFRSF14 in classical Hodgkin lymphoma. [Genes Chromosomes Cancer. 55 \(3\): 278-87.](#)
11. Connolly, D.M. *et al.* (2023) Early Human Pathophysiological Responses to Exertional Hypobaric Decompression Stress. [Aerosp Med Hum Perform. 94 \(10\): 738-749.](#)
12. Bertolini, M. *et al.* (2023) Mechanical epilation exerts complex biological effects on human hair follicles and perifollicular skin: An *ex vivo* study approach [Int J Cosmetic Sci. 03 Nov \[Epub ahead of print\].](#)

Further Reading	1. Galkowska, H. <i>et al.</i> (1996) Reactivity of antibodies directed against human antigens with surface markers on canine leukocytes. Vet Immunol Immunopathol. 53 (3-4): 329-34.
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.
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/MCA532 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

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

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: 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	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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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
'M437672:250318'

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