

## Datasheet: MCA532T

<b>Description:</b>	MOUSE ANTI HUMAN CD54
<b>Specificity:</b>	CD54
<b>Other names:</b>	ICAM-1
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	84H10
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	25 µg

## 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	▪			Neat - 1/10
Immunohistology - Frozen (1)	▪			1/20 - 1/50
Immunohistology - Paraffin		▪		
ELISA	▪			
Immunoprecipitation	▪			5µg / 10 <sup>7</sup> 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) Removal of sodium azide is recommended prior to use in functional assays.**

<b>Target Species</b>	Human
-----------------------	-------

<b>Species Cross Reactivity</b>	<p>Reacts with: Dog</p> <p><b>N.B.</b> Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or</p>
---------------------------------	---

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 tissue culture supernatant
--------------------	---

---

<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 1.0 mg/ml
---------------------------------------	-----------------------------

---

<b>Immunogen</b>	K562 cell line.
------------------	-----------------

---

<b>External Database Links</b>	<b>UniProt:</b> <a href="#">P05362</a> <a href="#">Related reagents</a>  <b>Entrez Gene:</b> <a href="#">3383</a> ICAM1 <a href="#">Related reagents</a>
--------------------------------	--

---

<b>RRID</b>	AB_2233402
-------------	------------

---

<b>Fusion Partners</b>	Spleen cells from immunized BALB/c mice were fused with cells of the MOPC 315 mouse myeloma cell line.
------------------------	--

---

<b>Specificity</b>	<p><b>Mouse anti Human CD54 antibody, clone 84H10</b> 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>
--------------------	--

---

<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
-----------------------	---

---

<b>References</b>	<ol style="list-style-type: none"><li>1. Makgoba, M.W. <i>et al.</i> (1988) ICAM-1 a ligand for LFA-1-dependent adhesion of B, T and myeloid cells. <a href="#">Nature. 331 (6151): 86-8.</a></li><li>2. Simmons, D. <i>et al.</i> (1988) ICAM, an adhesion ligand of LFA-1, is homologous to the</li></ol>
-------------------	---

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 cytotoxicity 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) Antithrombin 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. *et al.* (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/MCA532T>  
10040

---

**Regulatory**

For research purposes only

---

## Related Products

## Recommended Secondary Antibodies

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

## Recommended Negative Controls

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

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 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 Fax: +44 (0)1865 852 739 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 Fax: +49 (0) 89 8090 95 50 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://bio-rad-antibodies.com/datasheets)  
'M437673:250318'

Printed on 18 Mar 2025