

Datasheet: MCA532

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| 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.**

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| 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.

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| 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 immunised 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. |
|-------------------|---|

2. 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.](#)
3. de Fougères, A.R. & Springer, T.A. (1992) Intercellular adhesion molecule 3, a third adhesion counter-receptor for lymphocyte function-associated molecule 1 on resting lymphocytes. [J Exp Med. 175 \(1\): 185-90.](#)
4. 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.](#)
5. Rothlein, R. *et al.* (1986) A human intercellular adhesion molecule (ICAM-1) distinct from LFA-1. [J Immunol. 137 \(4\): 1270-4.](#)
6. Dustin, M.L. *et al.* (1986) Induction by IL 1 and interferon-gamma: tissue distribution, biochemistry, and function of a natural adherence molecule (ICAM-1). [J Immunol. 137 \(1\): 245-54.](#)
7. 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.](#)
8. 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.](#)
9. 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.](#)
10. 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.](#)
11. Salvatierra, A. *et al.* (2001) Antithrombin III prevents early pulmonary dysfunction after lung transplantation in the dog. [Circulation. 104: 2975-80.](#)
12. 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.](#)
13. Chen, P.Y. *et al.* (2015) Endothelial-to-mesenchymal transition drives atherosclerosis progression. [J Clin Invest. 125 \(12\): 4514-28.](#)
14. Salipante, S.J. *et al.* (2016) Recurrent somatic loss of TNFRSF14 in classical Hodgkin lymphoma. [Genes Chromosomes Cancer. 55 \(3\): 278-87.](#)

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: 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

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| Goat Anti Mouse IgG (STAR77...) | HRP |
| Rabbit Anti Mouse IgG (STAR12...) | RPE |
| Rabbit Anti Mouse IgG (STAR8...) | DyLight®800 |
| Goat Anti Mouse IgG (STAR76...) | RPE |
| Goat Anti Mouse IgG (Fc) (STAR120...) | FITC , HRP |
| Goat Anti Mouse IgG IgA IgM (STAR87...) | Alk. Phos. , HRP |
| Rabbit Anti Mouse IgG (STAR13...) | HRP |
| Goat Anti Mouse IgG (STAR70...) | FITC |
| Rabbit Anti Mouse IgG (STAR9...) | FITC |
| 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 \(MCA928\)](#)

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| 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
'M389575:210806'

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