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	▪			5ug / 10e7 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. Bio-Rad recommend the use of EQU003 for this purpose.**

Target Species	Human
Species Cross Reactivity	Reacts with: Dog **N.B.** Antibody reactivity and working conditions may vary between species.
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A from ascites
Buffer Solution	Phosphate buffered saline
Preservative	0.09% Sodium Azide

Stabilisers	
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	K562 cell line.
External Database Links	**UniProt:** P05362 Related reagents **Entrez Gene:** 3383 ICAM1 Related reagents
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the MOPC 315 mouse myeloma cell line.
Specificity	**Mouse anti Human CD54 antibody, clone 84H10** recognizes the D1 domain of ICAM-1. 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. Detects an antigen of 90kD. Mouse anti Human CD54 antibody, clone 84H10 has been reported to block ICAM1 mediated cellular adhesion and block binding of LFA-1 and *P. falciparum* to ICAM-1. Mouse anti Human CD54 antibody, clone 84H10 is routinely tested in flow cytometry on rat splenocytes.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10^6 cells in 100ul.
References	1. Makgoba, M.W. *et al.* (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 Fougerolles, 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	Store at +4°C or at -20°C if preferred. This product should be stored undiluted. Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
Shelf Life	18 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

Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos., HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®549, DyLight®649, DyLight®680, DyLight®800, FITC, HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP
Rabbit Anti Mouse IgG (STAR8...)	DyLight®800
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR13...)	HRP
Human Anti Mouse IgG1 (HCA036...)	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
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