

Monoclonal Antibody to CD54 / ICAM1 - FITC

Alternate names:	ICAM-1, Intercellular adhesion molecule 1, Major Group Rhinovirus Receptor
Catalog No.:	SM286F
Quantity:	0.1 mg
Concentration:	0.1 mg/ml IgG
Background:	CD54 cell surface antigen, also known as the intercellular adhesion molecule-1 (ICAM-1), is a 90 kD adhesion molecule belonging to the immunoglobulin superfamily. This is a cell surface ligand of the lymphocyte integrin, LFA-1 and is known to play an important role in various cell-cell interactions in the immune system.
Uniprot ID:	Q00238
NCBI:	NP_037099.1
GeneID:	25464
Host / Isotype:	Mouse / IgG1
Clone:	1A29
Immunogen:	Rat Ax cells (a rat HEV derived cell line). Remarks: Spleen cells from immunised BALB/c mice were fused with cells from the PA1 mouse myeloma cell line.
Format:	State: Liquid purified IgG fraction Purification: Affinity Chromatography on Protein G Buffer System: PBS, pH 7.2, containing 1% BSA as stabiliser and 0.09% Sodium Azide as preservative. Label: FITC – Fluorescein Isothiocyanate Isomer 1
Applications:	Flow Cytometry: Use 10 µl of neat antibody to label 10e6 cells in 100 µl. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This antibody recognizes the CD54 cell surface antigen, also known as intercellular adhesion molecule-1 (ICAM-1). Recent studies suggest that cross-linking of ICAM-1 using clone 1A29 induces calcium signalling. Functionally 1A29 inhibits homotypic aggregation of PHA blasts. We recommend SM286LE for this use.
Species Reactivity:	Tested: Rat.
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing. Shelf life: one year from despatch.

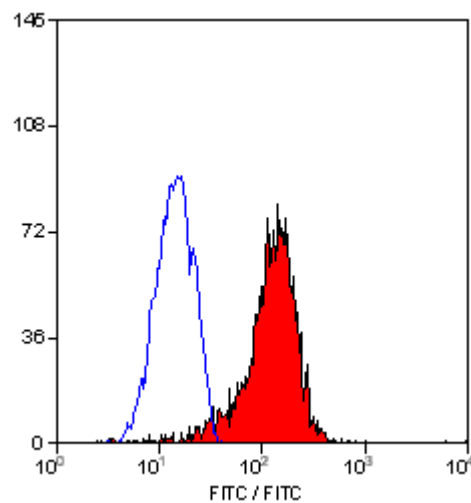
For research and in vitro use only. Not for diagnostic or therapeutic work.

Material Safety Datasheets are available at www.acris-antibodies.com or on request.

Antibody Hotline - Technical Questions - Antibody Location Service
Free Call: 0800-2274746 (Germany only) - www.acris-antibodies.com

- General References:**
1. Tamatani, T & Miyasaka, M. (1990) Identification of monoclonal antibodies reactive with the rat homolog of ICAM-1, and evidence for a differential involvement of ICAM-1 in the adherence of resting versus activated lymphocytes to high endothelial cells. *Int. Immunol.* 2: 165-171.
 2. Tamatani, T. et al. (1991) Molecular mechanisms underlying lymphocyte recirculation. II. Differential regulation of LFA-1 in interaction between lymphocytes and high endothelial cells. *Eur. J. Immunol.* 21: 855-858.
 3. Etienne, S. et al. (1998) ICAM-1 signalling pathways associated with Rho activation in microvascular brain endothelial cells. *J. Immunol.* 161: 5755-5761.
 4. Etienne, S. et al. (2000) ICAM-1-coupled cytoskeletal rearrangements and transendothelial lymphocyte migration involve intracellular calcium signaling in brain endothelial cell lines. *J. Immunol.* 165: 3375-3383.
 5. McKechnie, N. M. et al. (2002) Antigenic mimicry: *Onchocerca volvulus* antigen-specific T cells and ocular inflammation. *Invest Ophthalmol Vis Sci.* 43:411-8.
 6. Azcutia, V. et al. (2010) Inflammation determines the pro-adhesive properties of high extracellular d-glucose in human endothelial cells in vitro and rat microvessels in vivo. *PLoS One* 5: e10091
 7. Banerjee, S. et al. (2003) Development of organised conjunctival leucocyte aggregates after corneal transplantation in rats. *Br J Ophthalmol.* 2003 Dec;87(12):1515-22.
 8. Kielian, T. et al. (2000) Proinflammatory cytokine, chemokine, and cellular adhesion molecule expression during the acute phase of experimental brain abscess development. *Am J Pathol.* 157: 647-58.
 9. Trinh, L. et al. (2008) The corneal endothelium in an endotoxin-induced uveitis model: correlation between in vivo confocal microscopy and immunohistochemistry. *Mol Vis.* 14: 1149-56.

Pictures:



Staining of stimulated Rat spleen cells with FITC conjugated Mouse anti-Rat CD54 antibody (SM286F)

For research and in vitro use only. Not for diagnostic or therapeutic work.

Material Safety Datasheets are available at www.acris-antibodies.com or on request.

Antibody Hotline - Technical Questions - Antibody Location Service
Free Call: 0800-2274746 (Germany only) - www.acris-antibodies.com