



1F-625-C100

Monoclonal Antibody to CD54 (mouse) Fluorescein (FITC) conjugated (0.1 mg)

Clone:	YN1/1.7.4
Isotype:	Rat IgG2b
Specificity:	The rat monoclonal antibody YN1/1.7.4 reacts with CD54 (ICAM-1), a 85-110 kDa type I transmembrane glycoprotein expressed on activated endothelial cells, T lymphocytes, B lymphocytes, monocytes, macrophages, granulocytes and dendritic cells; the expression of CD54 is upregulated by activation.
Regulatory Status:	RUO
Immunogen:	Mouse NS-1 cells
Species Reactivity:	Mouse
Preparation:	The purified antibody is conjugated with Fluorescein isothiocyanate (FITC) under optimum conditions. The reagent is free of unconjugated FITC.
Concentration:	0.5 mg/ml
Storage Buffer:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.
Usage:	The reagent is designed for Flow Cytometry analysis. Suggested working concentration is 2 µg/ml. Indicated dilution is recommended starting point for use of this product. Working concentrations should be determined by the investigator.
Expiration:	See vial label
Lot Number:	See vial label
Background:	CD54 (ICAM-1) is a member of the C2 subset of immunoglobulin superfamily. It is a transmembrane molecule with 7 potential N-glycosylated sites, expressed on resting monocytes and endothelial cells and can be upregulated on many other cells, e.g. with lymphokines, on B- and T-lymphocytes, thymocytes, dendritic cells and also on keratinocytes, chondrocytes, as well as epithelial cells. CD54 mediates cell adhesion by binding to integrins CD11a/CD18 (LFA-1) and to CD11b/CD18 (Mac-1). The interaction of CD54 with LFA-1 enhances antigen-specific T-cell activation.

For laboratory research only, not for drug, diagnostic or other use.

**Antibodies****References:**

- *Horley KJ, Carpenito C, Baker B, Takei F: Molecular cloning of murine intercellular adhesion molecule (ICAM-1). *EMBO J.* 1989 Oct;8(10):2889-96.
- *Burns AR, Takei F, Doerschuk CM: Quantitation of ICAM-1 expression in mouse lung during pneumonia. *J Immunol.* 1994 Oct 1;153(7):3189-98.
- *Soriano A, Salas A, Salas A, Sans M, Gironella M, Elena M, Anderson DC, Piqué JM, Panés J: VCAM-1, but not ICAM-1 or MAdCAM-1, immunoblockade ameliorates DSS-induced colitis in mice. *Lab Invest.* 2000 Oct;80(10):1541-51.
- *Barrett SP, Riordon A, Toh BH, Gleeson PA, van Driel IR: Homing and adhesion molecules in autoimmune gastritis. *J Leukoc Biol.* 2000 Feb;67(2):169-73
- *Greicius G, Westerberg L, Davey EJ, Buentke E, Scheynius A, Thyberg J, Severinson E: Microvilli structures on B lymphocytes: inducible functional domains? *Int Immunol.* 2004 Feb;16(2):353-64.
- *Ma Z, Sharp KA, Janmey PA, Finkel TH: Surface-anchored monomeric agonist pMHCs alone trigger TCR with high sensitivity. *PLoS Biol.* 2008 Feb;6(2):e43.
- *Sasaki M, Ostanin D, Elrod JW, Oshima T, Jordan P, Itoh M, Joh T, Minagar A, Alexander JS: TNF-alpha -induced endothelial cell adhesion molecule expression is cytochrome P-450 monooxygenase dependent. *Am J Physiol Cell Physiol.* 2003 Feb;284(2):C422-8.
- *Sasaki M, Elrod JW, Jordan P, Itoh M, Joh T, Minagar A, Alexander JS: CYP450 dietary inhibitors attenuate TNF-alpha-stimulated endothelial molecule expression and leukocyte adhesion. *Am J Physiol Cell Physiol.* 2004 Apr;286(4):C931-9.
- *Salas A, Gironella M, Salas A, Soriano A, Sans M, Iovanna J, Piqué JM, Panés J: Nitric oxide supplementation ameliorates dextran sulfate sodium-induced colitis in mice. *Lab Invest.* 2002 May;82(5):597-607.
- *Chin JE, Winterrowd GE, Hatfield CA, Brashler JR, Griffin RL, Vonderfecht SL, Kolbasa KP, Fidler SF, Shull KL, Krzesicki RF, Ready KA, Dunn CJ, Sly LM, Staite ND, Richards IM: Involvement of intercellular adhesion molecule-1 in the antigen-induced infiltration of eosinophils and lymphocytes into the airways in a murine model of pulmonary inflammation. *Am J Respir Cell Mol Biol.* 1998 Feb;18(2):158-67.
- *And many other.

Unless indicated otherwise, all products are For Research Use Only and not for diagnostic or therapeutic use. Not for resale or transfer either as a stand-alone product or as a component of another product without written consent of EXBIO. EXBIO will not be held responsible for patent infringement or other violations that may occur with the use of our products. All orders are accepted subject to EXBIO's term and conditions which are available at www.exbio.cz.

For laboratory research only, not for drug, diagnostic or other use.

EXBIO Praha | Nad Safinou II 341 | 252 50 Vestec u Prahy | Czech Republic
Tel: +420 261 090 666 | Fax: +420 261 090 660 | orders@exbio.cz | www.exbio.cz