

# ICAM-1 (M-19): sc-1511

## BACKGROUND

Cell adhesion molecules (CAMs) are a family of closely related cell surface glycoproteins involved in cell-cell interactions during growth and are thought to play important, yet separate, roles in embryogenesis and development. The intracellular adhesion molecule-1 (ICAM-1), also referred to as CD54, is an integral membrane protein of the immunoglobulin superfamily and recognizes the  $\beta 2\alpha 1$  and  $\beta 2\alpha M$  integrins. ICAM-2 functions as a ligand for lymphocyte function-associated antigen-1 (LFA-1) and is involved in leukocyte adhesion. ICAM-3 is highly expressed on the surface of human eosinophils, and when bound to ligand may inhibit eosinophil inflammatory responses and survival. ICAM-4, also known as LW glycoprotein, interacts with the integrins  $\alpha L\beta 2$ ,  $\alpha M\beta 2$ ,  $\alpha 4\beta 1$ , the  $\alpha V$  family and  $\alpha IIb\beta 3$ , and selective binding to different integrins may be relevant to the pathology in a number of red blood cell associated diseases. Lastly, ICAM-5, expressed on telencephalic neurons, binds CD11a/CD18 and thus may act as an adhesion molecule for leukocyte binding in the central nervous system.

## CHROMOSOMAL LOCATION

Genetic locus: ICAM1 (human) mapping to 19p13.2; Icam1 (mouse) mapping to 9 A3.

## SOURCE

ICAM-1 (M-19) is available as either goat (sc-1511) or rabbit (sc-1511-R) polyclonal affinity purified antibody raised against a peptide mapping at the C-terminus of ICAM-1 of mouse origin.

## PRODUCT

Each vial contains either 100  $\mu$ g (sc-1511) or 200  $\mu$ g (sc-1511-R) IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-1511 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as agarose conjugate for immunoprecipitation, sc-1511 AC, 500  $\mu$ g/ 0.25 ml agarose in 1 ml.

## APPLICATIONS

ICAM-1 (M-19) is recommended for detection of ICAM-1 of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ICAM-1 siRNA (h): sc-29354, ICAM-1 siRNA (m): sc-29355, ICAM-1 shRNA Plasmid (h): sc-29354-SH, ICAM-1 shRNA Plasmid (m): sc-29355-SH, ICAM-1 shRNA (h) Lentiviral Particles: sc-29354-V and ICAM-1 shRNA (m) Lentiviral Particles: sc-29355-V.

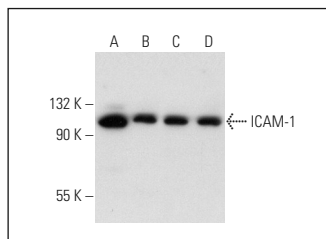
Molecular Weight of ICAM-1: 85-110 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, WEHI-231 whole cell lysate: sc-2213 or AMJ2-C8 whole cell lysate: sc-364366.

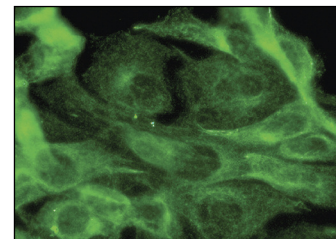
## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## DATA



ICAM-1 (M-19): sc-1511. Western blot analysis of ICAM-1 expression in TK-1 (A), WEHI-231 (B), RAW 264.7 (C) and AMJ2-C8 (D) whole cell lysates.



ICAM-1 (M-19)-R: sc-1511-R. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing membrane localization.

## SELECT PRODUCT CITATIONS

1. Bisgaard, H., et al. 1999. Modulation of the gene network connected to interferon- $\gamma$  in liver regeneration from oval cells. *Am. J. Pathol.* 155: 1075-1085.
2. Tian, D., et al. 2011. Hypertensive nephropathy treatment by heart-protecting musk pill: a study of anti-inflammatory therapy for target organ damage of hypertension. *Int. J. Gen. Med.* 4: 131-139.
3. Vieira, R.P., et al. 2011. Airway epithelium mediates the anti-inflammatory effects of exercise on asthma. *Respir. Physiol. Neurobiol.* 175: 383-389.
4. Soetikno, V., et al. 2011. Curcumin ameliorates macrophage infiltration by inhibiting NF $\kappa$ B activation and proinflammatory cytokines in streptozotocin induced-diabetic nephropathy. *Nutr. Metab.* 8: 35.
5. Degousee, N., et al. 2011. Group V phospholipase A<sub>2</sub> in bone marrow-derived myeloid cells and bronchial epithelial cells promotes bacterial clearance after *Escherichia coli* pneumonia. *J. Biol. Chem.* 286: 35650-35662.
6. Silva, A.C., et al. 2012. Exercise inhibits allergic lung inflammation. *Int. J. Sports Med.* 33: 402-409.
7. Simic, B., et al. 2012. Torcetrapib impairs endothelial function in hypertension. *Eur. Heart J.* 33: 1615-1624.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.



Try **ICAM-1 (G-5): sc-8439** or **ICAM-1 (H-4): sc-390483**, our highly recommended monoclonal alternatives to ICAM-1 (M-19). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **ICAM-1 (G-5): sc-8439**.