

ICAM-3 (3.1): sc-9971

BACKGROUND

Cell adhesion molecules (CAMs) are a family of closely related cell surface glycoproteins involved in cell-cell interactions during growth. These proteins are thought to play an important role in embryogenesis and development. ICAM-3, also designated CD50 and ICAM-R, is a type I membrane protein that is thought to regulate morphological changes during cell locomotion. ICAM-3 acts as a counter-receptor for the leukocyte Integrin α L/ β 2, and is known to activate T cells and polymorphonuclear leukocytes. ICAM-3 also binds to Moesin, via the cytoplasmic domain of ICAM-3. The expression of ICAM-3 is induced by RANTES, a chemoattractant known to activate T lymphocytes. ICAM-3 is also a major ligand for the leukocyte Integrin LFA-1 (CD11a/CD18).

REFERENCES

1. Fawcett, J., et al. 1992. Molecular cloning of ICAM-3, a third ligand for LFA-1, constitutively expressed on resting leukocytes. *Nature* 360: 481-484.
2. Serrador, J.M., et al. 1997. Moesin interacts with the cytoplasmic region of intercellular adhesion molecule-3 and is redistributed to the uropod of T lymphocytes during cell polarization. *J. Cell Biol.* 138: 1409-1423.
3. Szabo, M.C., et al. 1997. RANTES stimulation of T lymphocyte adhesion and activation: role for LFA-1 and ICAM-3. *Eur. J. Immunol.* 27: 1061-1068.

CHROMOSOMAL LOCATION

Genetic locus: ICAM3 (human) mapping to 19p13.2.

SOURCE

ICAM-3 (3.1) is a mouse monoclonal antibody raised against full length ICAM-3 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ICAM-3 (3.1) is available conjugated to either phycoerythrin (sc-9971 PE) or fluorescein (sc-9971 FITC), 200 μ g/ml, for IF, IHC(P) and FCM.

APPLICATIONS

ICAM-3 (3.1) is recommended for detection of ICAM-3 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 μ g per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ICAM-3 siRNA (h): sc-35628, ICAM-3 shRNA Plasmid (h): sc-35628-SH and ICAM-3 shRNA (h) Lentiviral Particles: sc-35628-V.

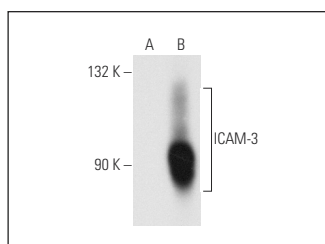
Molecular Weight of ICAM-3: 110-160 kDa.

Positive Controls: ICAM-3 (h): 293T Lysate: sc-116577, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

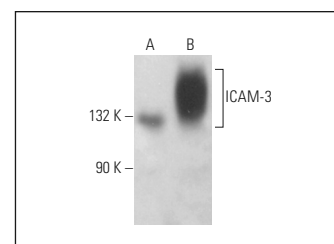
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ICAM-3 (3.1): sc-9971. Western blot analysis of ICAM-3 expression in non-transfected: sc-117752 (A) and human ICAM-3 transfected: sc-116577 (B) 293T whole cell lysates.



ICAM-3 (3.1): sc-9971. Western blot analysis of ICAM-3 expression in HeLa (A) and Jurkat (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Demetter, P., et al. 2002. Increase in lymphoid follicles and leukocyte adhesion molecules emphasizes a role for the gut in spondyloarthritis pathogenesis. *J. Pathol.* 198: 517-522.
2. Gattenlohner, S., et al. 2003. NCAM(CD56) and RUNX1(AML1) are up-regulated in human ischemic cardiomyopathy and a rat model of chronic cardiac ischemia. *Am. J. Pathol.* 163: 1081-1090.
3. Bogoevska, V., et al. 2007. DC-SIGN binds ICAM-3 isolated from peripheral human leukocytes through Lewis x residues. *Glycobiology* 17: 324-333.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.