

ICAM-3 (5F74): sc-71309

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., Holness, C.L., Needham, L.A., Turley, H., Gatter, K.C., Mason, D.Y. and Simmons, D.L. 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., Alonso-Lebrero, J.L., del Pozo, M.A., Furthmayr, H., Schwartz-Albiez, R., Calvo, J., Loranzo, F. and Sanchez-Madrid, F. 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., Butcher, E.C., McIntyre, B.W., Schall, T.J. and Bacon, K.B. 1997. RANTES stimulation of T lymphocyte adhesion and activation: role for LFA-1 and ICAM-3. *Eur. J. Immunol.* 27: 1061-1068.
4. Hayflick, J.S., Kilgannon, P. and Gallatin, W.M. 1998. The intercellular adhesion molecule (ICAM) family of proteins. New members and novel functions. *Immunol. Res.* 17: 313-327.
5. Bell, E.D., May, A.P. and Simmons, D.L. 1998. The leukocyte function-associated antigen-1 (LFA-1)-binding site on ICAM-3 comprises residues on both faces of the first immunoglobulin domain. *J. Immunol.* 161: 1363-1370.
6. Feldhaus, M.J., Kessel, J.M., Zimmerman, G.A. and McIntyre, T.M. 1998. Engagement of ICAM-3 activates polymorphonuclear leukocytes: aggregation without degranulation or β 2 integrin recruitment. *J. Immunol.* 161: 6280-6287.

CHROMOSOMAL LOCATION

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

SOURCE

ICAM-3 (5F74) is a mouse monoclonal antibody raised against leukocytes of human origin.

PRODUCT

Each vial contains 100 μ g IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

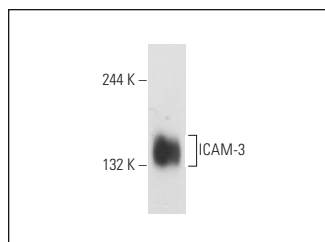
ICAM-3 (5F74) is recommended for detection of ICAM-3 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and flow cytometry (1 μ g per 1×10^6 cells).

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.

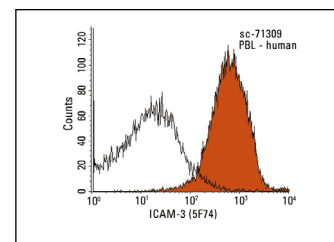
Molecular Weight of ICAM-3: 110-160 kDa.

Positive Controls: U-937 cell lysate: sc-2239.

DATA



ICAM-3 (5F74): sc-71309. Western blot analysis of ICAM-3 expression in U-937 whole cell lysate.



ICAM-3 (5F74): sc-71309. Indirect FCM analysis of human peripheral blood leukocytes stained with ICAM-3 (5F74), followed by PE-conjugated goat anti-mouse IgG; sc-3764. Black line histogram represents the isotype control, normal mouse IgG; sc-3877.

STORAGE

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

PROTOCOLS

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