

# ICAM-3 (186.2G9): sc-65269

## 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  $\alpha$ L/ $\beta$ 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

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2. Serrador, J.M., Alonso-Lebrero, J.L., del Pozo, M.A., Furthmayr, H., Schwartz-Albiez, R., Calvo, J., Loran, 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  $\beta$ 2 integrin recruitment. *J. Immunol.* 161: 6280-6287.

## CHROMOSOMAL LOCATION

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

## SOURCE

ICAM-3 (186.2G9) is a mouse monoclonal antibody raised against stimulated leukocytes of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2b</sub> kappa light chain 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 (186.2G9) 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  $\mu$ 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1  $\mu$ g per 1 x 10<sup>6</sup> cells).

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

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

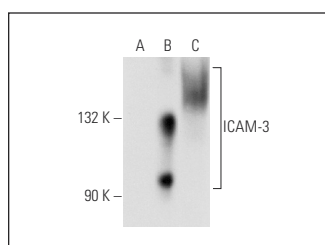
Positive Controls: HL-60 whole cell lysate: sc-2209, BJAB whole cell lysate: sc-2207 or THP-1 cell lysate: sc-2238.

## RECOMMENDED SUPPORT REAGENTS

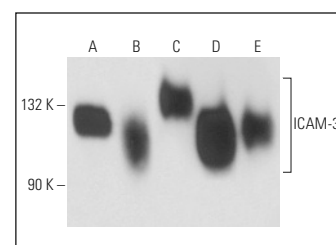
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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 $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.
- 4) Immunohistochemistry: use m-IgG $\kappa$  BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



ICAM-3 (186.2G9): sc-65269. Western blot analysis of ICAM-3 expression in non-transfected 293T: sc-117752 (A), human ICAM-3 transfected 293T: sc-116577 (B) and human PBL (C) whole cell lysates.



ICAM-3 (186.2G9): sc-65269. Western blot analysis of ICAM-3 expression in Jurkat (A), U-698-M (B), U-937 (C), HuT 78 (D) and Ramos (E) whole cell lysates.

## 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](http://www.scbt.com) for detailed protocols and support products.