

ICAM-1 (H-108): sc-7891

BACKGROUND

Cell adhesion molecules 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 αV 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 CD11 a/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.

SOURCE

ICAM-1 (H-108) is a rabbit polyclonal antibody raised against amino acids 258-365 mapping within an extracellular domain of ICAM-1 of human origin.

PRODUCT

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

APPLICATIONS

ICAM-1 (H-108) is recommended for detection of ICAM-1 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), immunohistochemistry (including paraffin-embedded sections) (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 shRNA Plasmid (h): sc-29354-SH and ICAM-1 shRNA (h) Lentiviral Particles: sc-29354-V.

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

Positive Controls: ICAM-1 (h): 293T Lysate: sc-176625, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

STORAGE

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

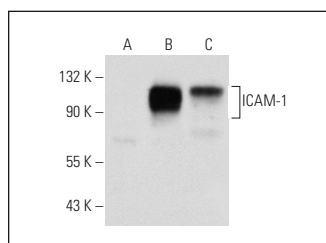
PROTOCOLS

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

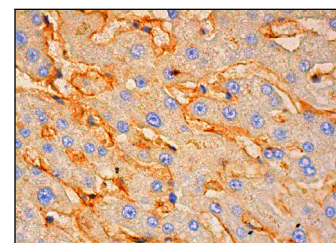
RESEARCH USE

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

DATA



ICAM-1 (H-108): sc-7891. Western blot analysis of ICAM-1 expression in non-transfected 293T: sc-117752 (A), human ICAM-1 transfected 293T: sc-176625 (B) and HeLa (C) whole cell lysates.



ICAM-1 (H-108): sc-7891. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing membrane and cytoplasmic staining of hepatic sinusoids.

SELECT PRODUCT CITATIONS

1. Zou, Y., et al. 2000. Reduced neointima hyperplasia of vein bypass grafts in intercellular adhesion molecule-1-deficient mice. *Circ. Res.* 86: 434-440.
2. Gupta, S.C., et al. 2010. Modification of cysteine 179 of I κ B α kinase by nimbolide leads to down-regulation of NF κ B-regulated cell survival and proliferative proteins and sensitization of tumor cells to chemotherapeutic agents. *J. Biol. Chem.* 285: 35406-35417.
3. Sung, B., et al. 2010. Noscapine, a benzyloquinoline alkaloid, sensitizes leukemic cells to chemotherapeutic agents and cytokines by modulating the NF κ B signaling pathway. *Cancer Res.* 70: 3259-3268.
4. Kunnumakkara, A.B., et al. 2010. γ -tocotrienol inhibits pancreatic tumors and sensitizes them to gemcitabine treatment by modulating the inflammatory microenvironment. *Cancer Res.* 70: 8695-8705.
5. Harikumar, K.B., et al. 2010. Escin, a pentacyclic triterpene, chemosensitizes human tumor cells through inhibition of nuclear factor- κ B signaling pathway. *Mol. Pharmacol.* 77: 818-827.
6. Impellizzeri, D., et al. 2011. CGS 21680, an agonist of the adenosine (A2A) receptor, decreases acute lung inflammation. *Eur. J. Pharmacol.* 668: 305-316.
7. Lavaud, A., et al. 2012. Paradoxical effects of polyphenolic compounds from Clusiaceae on angiogenesis. *Biochem. Pharmacol.* 83: 514-523.
8. Joo, H.K., et al. 2012. Peripheral benzodiazepine receptor regulates vascular endothelial activations via suppression of the voltage-dependent anion channel-1. *FEBS Lett.* 586: 1349-1355.

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Try **ICAM-1 (G-5): sc-8439** or **ICAM-1 (H-4): sc-390483**, our highly recommended monoclonal alternatives to ICAM-1 (H-108). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **ICAM-1 (G-5): sc-8439**.