SANTA CRUZ BIOTECHNOLOGY, INC.

ICAM-2 (F-5): sc-9987

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 β2α1 and β2αM 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 αLβ2, αMβ2, α4β1, the αV family and αIIbβ3, 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: ICAM2 (human) mapping to 17q23.3; Icam2 (mouse) mapping to 11 E1.

SOURCE

ICAM-2 (F-5) is a mouse monoclonal antibody raised against amino acids 65-223 mapping within the extracellular domain of ICAM-2 of human origin.

PRODUCT

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

ICAM-2 (F-5) is available conjugated to either phycoerythrin (sc-9987 PE) or fluorescein (sc-9987 FITC), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

STORAGE

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

APPLICATIONS

ICAM-2 (F-5) is recommended for detection of ICAM-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10^6 cells).

Suitable for use as control antibody for ICAM-2 siRNA (h): sc-35626, ICAM-2 siRNA (m): sc-35627, ICAM-2 shRNA Plasmid (h): sc-35626-SH, ICAM-2 shRNA Plasmid (m): sc-35627-SH, ICAM-2 shRNA (h) Lentiviral Particles: sc-35626-V and ICAM-2 shRNA (m) Lentiviral Particles: sc-35627-V.

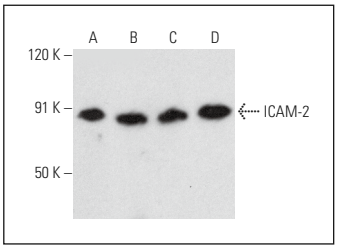
Molecular Weight of ICAM-2 glycosylation: 55-80 kDa.

Positive Controls: Neuro-2A whole cell lysate: sc-364185, SP2/0 whole cell lysate: sc-364795 or NAMALWA cell lysate: sc-2234.

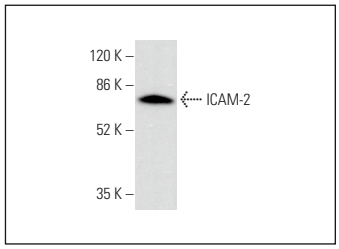
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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 L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ 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-2 (F-5): sc-9987. Western blot analysis of ICAM-2 expression in NAMALWA (**A**), Neuro-2A (**B**), SP2/0 (**C**) and NRK (**D**) whole cell lysates.



ICAM-2 (F-5): sc-9987. Western blot analysis of ICAM-2 expression in Raji whole cell lysate.

SELECT PRODUCT CITATIONS

1. Demetter, P., et al. 2002. Increase in lymphoid follicles and leukocyte adhesion molecules emphasizes a role for the gut in spondyloarthropathy 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. Waleh, N., et al. 2005. The role of monocyte-derived cells and inflammation in baboon ductus arteriosus remodeling. Pediatr. Res. 57: 254-262.
4. Nauli, S.M., et al. 2008. Endothelial cilia are fluid shear sensors that regulate calcium signaling and nitric oxide production through polycystin-1. Circulation 117: 1161-1171.
5. Chou, C.H., et al. 2014. *In vitro* modeling of the neurovascular environment by coculturing adult human brain endothelial cells with human neural stem cells. PLoS ONE 9: e106346.
6. Shang, Y., et al. 2022. Activated platelet membrane nanovesicles recruit neutrophils to exert the antitumor efficiency. Front. Chem. 10: 955995.

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.