

# DNAM-1 (M-42): sc-98932

## BACKGROUND

The T cell antigen receptor (TCR) recognizes foreign antigens and translates such recognition events into intracellular signals that elicit a change in the cell from a dormant to an activated state. Additional proteins termed "accessory molecules" are also required for activation and for cytotoxic T lymphocyte (CTL)-mediated cytotoxicity. For instance, CD2, CD4, CD8, LFA-1 and CD28 are examples of well characterized accessory molecules. An accessory molecule designated DNAX accessory molecule-1, or DNAM-1, has been described. DNAM-1 is a transmembrane glycoprotein that is 318 amino acids in length and contains two immunoglobulin-like domains. DNAM-1 is expressed on both T cells and natural killer (NK) cells and participates in primary adhesion during CTL-mediated cytotoxicity.

## REFERENCES

1. Arthos, J., Deen, K.C., Chaikin, M.A., Fornwald, J.A., Sathe, G., Sattentau, Q.J., Clapham, P.R., Weiss, R.A., McDougal, J.S. and Pietropaolo, C. 1989. Identification of the residues in human CD4 critical for the binding of HIV. *Cell* 57: 469-481.
2. Weiss, A., Irving, B.A., Tan, L.K. and Koretzky, G.A. 1991. Signal transduction by the T cell antigen receptor. *Semin. Immunol.* 3: 313-324.
3. Allison, J.P. and Havran, W.L. 1991. The immunobiology of T cells with invariant  $\gamma\delta$  antigen receptors. *Annu. Rev. Immunol.* 9: 679-705.
4. Ehrlich, E.W., Devaux, B., Rock, E.P., Jorgensen, J.L., Davis, M.N. and Chien, Y.H. 1993. T cell receptor interaction with peptide/major histocompatibility complex (MHC) and superantigen/MHC ligands is dominated by antigen. *J. Exp. Med.* 178: 713-722.
5. Julius, M., Maroun, C.R. and Haughn, L. 1993. Distinct roles for CD4 and CD8 as co-receptors in antigen receptor signalling. *Immunol. Today* 14: 177-183.
6. Vignali, D.A. 1994. The interaction between CD4 and MHC class II molecules and its effect on T cell function. *Behring Inst. Mitt.* 94: 133-147.
7. Shibuya, A., Campbell, D., Hannum, C., Yssel, H., Franz-Bacon, K., McClanahan, T., Kitamura, T., Nicholl, J., Sutherland, G.R., Lanier, L.L. and Phillips, J.H. 1996. DNAM-1, a novel adhesion molecule involved in the cytolytic function of T lymphocytes. *Immunity* 4: 573-581.

## CHROMOSOMAL LOCATION

Genetic locus: Cd226 (mouse) mapping to 18 E4.

## SOURCE

DNAM-1 (M-42) is a rabbit polyclonal antibody raised against amino acids 291-332 mapping near the C-terminus of DNAM-1 of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG 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

DNAM-1 (M-42) is recommended for detection of DNAM-1 of mouse and rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for DNAM-1 siRNA (m): sc-45776, DNAM-1 shRNA Plasmid (m): sc-45776-SH and DNAM-1 shRNA (m) Lentiviral Particles: sc-45776-V.

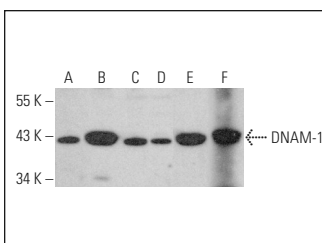
Molecular Weight of DNAM-1: 65 kDa.

Positive Controls: LADMAC whole cell lysate: sc-364189, C3H/10T1/2 cell lysate: sc-3801 or mouse bone marrow extract: sc-394627.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



DNAM-1 (M-42): sc-98932. Western blot analysis of DNAM-1 expression in NIH/3T3 (A), LADMAC (B), CTL-2 (C), SP2/0 (D) and C3H/10T1/2 (E) whole cell lysates and mouse bone marrow tissue extract (F).

## 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) or our catalog for detailed protocols and support products.