

DNAM-1 (D-11): sc-376736

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

- Arthos, J., et al. 1989. Identification of the residues in human CD4 critical for the binding of HIV. *Cell* 57: 469-481.
- Weiss, A., et al. 1991. Signal transduction by the T cell antigen receptor. *Semin. Immunol.* 3: 313-324.
- Allison, J.P., et al. 1991. The immunobiology of T cells with invariant $\gamma \delta$ antigen receptors. *Annu. Rev. Immunol.* 9: 679-705.
- Ehrlich, E.W., et al. 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.
- Julius, M., et al. 1993. Distinct roles for CD4 and CD8 as co-receptors in antigen receptor signalling. *Immunol. Today* 14: 177-183.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: CD226 (human) mapping to 18q22.2.

SOURCE

DNAM-1 (D-11) is a mouse monoclonal antibody raised against amino acids 9-300 mapping at the N-terminus of DNAM-1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DNAM-1 (D-11) is available conjugated to agarose (sc-376736 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376736 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376736 PE), fluorescein (sc-376736 FITC), Alexa Fluor® 488 (sc-376736 AF488), Alexa Fluor® 546 (sc-376736 AF546), Alexa Fluor® 594 (sc-376736 AF594) or Alexa Fluor® 647 (sc-376736 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376736 AF680) or Alexa Fluor® 790 (sc-376736 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

DNAM-1 (D-11) is recommended for detection of DNAM-1 of human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for DNAM-1 siRNA (h): sc-35202, DNAM-1 shRNA Plasmid (h): sc-35202-SH and DNAM-1 shRNA (h) Lentiviral Particles: sc-35202-V.

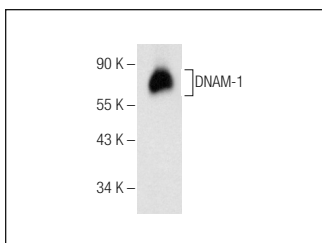
Molecular Weight of DNAM-1: 65 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225, Jurkat whole cell lysate: sc-2204 or human platelet extract: sc-363773.

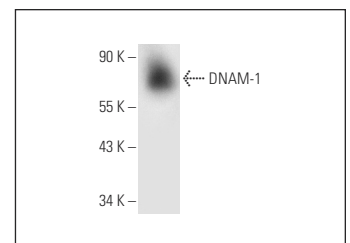
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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 A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



DNAM-1 (D-11): sc-376736. Western blot analysis of DNAM-1 expression in Jurkat whole cell lysate.



DNAM-1 (D-11): sc-376736. Western blot analysis of DNAM-1 expression in CCRF-CEM whole cell lysate.

SELECT PRODUCT CITATIONS

- Choi, J.W., et al. 2020. Proteome analysis of human natural killer cell derived extracellular vesicles for identification of anticancer effectors. *Molecules* 25: 5216.
- Cochran, A.M., et al. 2021. Extracellular vesicles from the human natural killer cell line NK3.3 have broad and potent anti-tumor activity. *Front. Cell Dev. Biol.* 9: 698639.

STORAGE

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

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