SANTA CRUZ BIOTECHNOLOGY, INC.

NCAM (MOC-1): sc-51742

BACKGROUND BACKGROUND

Neural cell adhesion molecules (NCAMs) are a family of closely related cell surface glycoproteins involved in cell to cell interactions during growth and thought to play an important role in embryogenesis and development. The expression of these molecules is widespread in all three germ layers during embryogenesis, but is more restrictive in adult tissues. NCAM expression is observed in a variety of human tumors including neuroblastomas, rhabdomyosarcomas, Wilms' tumor, Ewing's sarcoma and some primitive myeloid malignancies. Multiple isoforms of NCAM have been reported in both mouse and human brain tissue. In humans, NCAMs arise from differential splicing and use of alternative polyadenylation sites of a single gene mapping to 11q23.2.

REFERENCES

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2. Cunningham, B.A., et al. 1987. Neural cell adhesion molecule: structure, immunoglobulin-like domains, cell surface modulation and alternative RNA splicing. Science 236: 799-806.
3. Lipinski, M., et al. 1987. Characterization of neural cell adhesion molecules (NCAM) expressed by Ewing and neuroblastoma cell lines. Int. J. Cancer 40: 81-86.
4. Walsh, F.S. 1988. The NCAM gene is a complex transcriptional unit. Neurochem. Int. 12: 263-267.
5. Roth, J., et al. 1988. Presence of the long chain form of polysialic acid of the neural cell adhesion molecule in Wilms' tumor: identification of a cell adhesion molecule as an oncodevelopmental antigen and implications for tumor histogenesis. Am. J. Pathol. 133: 227-240.
6. Lanier, L.L., et al. 1989. Identity of Leu-19 (CD56) leucocyte differentiation antigen and neural cell adhesion molecule. J. Exp. Med. 169: 2233-2238.
7. Figarella-Branger, D.F., et al. 1990. Differential spectrum of expression of neural cell adhesion molecule isoforms and L1 adhesion molecules on neuroectodermal tumors. Cancer Res. 50: 6364-6370.
8. Phimister, E., et al. 1991. Expression of neural cell adhesion molecule (NCAM) isoforms in neuroblastoma. J. Clin. Pathol. 44: 580-585.
9. Bourne, S.P., et al. 1991. A monoclonal antibody (ERIC-1), raised against retinoblastoma, that recognizes the neural cell adhesion molecule (NCAM) expressed on brain and tumors arising from the neuroectoderm. J. Neurooncol. 10: 111-119.

CHROMOSOMAL LOCATION

Genetic locus: NCAM1 (human) mapping to 11q23.2.

SOURCE

NCAM (MOC-1) is a mouse monoclonal antibody raised against NCAM of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NCAM (MOC-1) is available conjugated phycoerythrin (sc-51742 PE, 100 tests in 2 ml), for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

NCAM (MOC-1) is recommended for detection of NCAM of human and bovine 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 NCAM siRNA (h): sc-29404, NCAM shRNA Plasmid (h): sc-29404-SH and NCAM shRNA (h) Lentiviral Particles: sc-29404-V.

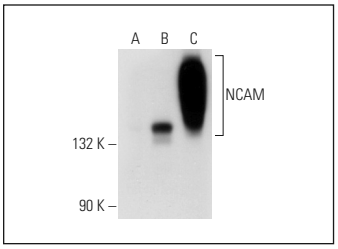
Molecular Weight of NCAM transmembrane isoforms: 140/180 kDa.

Molecular Weight of NCAM GPI-linked isoforms: 120/125 kDa.

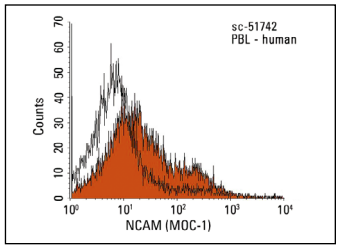
Molecular Weight of NCAM soluble fragment: 110 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, SK-N-SH cell lysate: sc-2410 or NCAM (h2): 293T Lysate: sc-177603.

DATA



NCAM (MOC-1): sc-51742. Western blot analysis of NCAM expression in non-transfected 293T: sc-117752 (**A**), human NCAM transfected 293T: sc-177603 (**B**) and IMR-32 (**C**) whole cell lysates.



NCAM (MOC-1): sc-51742. Indirect FCM analysis of human peripheral blood leukocytes stained with NCAM (MOC-1), followed by PE-conjugated goat anti-mouse IgG_1: sc-3764. Black line histogram represents the isotype control, normal mouse IgG_1: sc-3877.

STORAGE

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

RESEARCH USE

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