SANTA CRUZ BIOTECHNOLOGY, INC.

NCAM (h): 293T Lysate: sc-115782

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

1. Edelman, G.M. 1985. Cell adhesion and the molecular processes of morphogenesis. Annu. Rev. Biochem. 54: 135-169.
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.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

CHROMOSOMAL LOCATION

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

PRODUCT

NCAM (h): 293T Lysate represents a lysate of human NCAM transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

NCAM (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive NCAM antibodies. Recommended use: 10-20 µl per lane.

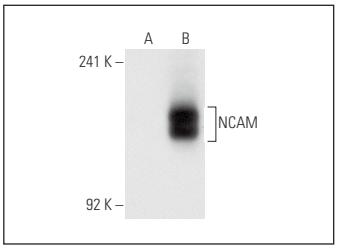
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

NCAM (CB56): sc-65896 is recommended as a positive control antibody for Western Blot analysis of enhanced human NCAM expression in NCAM transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



NCAM (CB56): sc-65896. Western blot analysis of NCAM expression in non-transfected: sc-117752 (**A**) and human NCAM transfected: sc-115782 (**B**) 293T whole cell lysates.

RESEARCH USE

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