SANTA CRUZ BIOTECHNOLOGY, INC.

NCAM (C-20): sc-1507

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.

CHROMOSOMAL LOCATION

Genetic locus: NCAM1 (human) mapping to 11q23.2; Ncam1 (mouse) mapping to 9 A5.3.

SOURCE

NCAM (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of NCAM of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-1507 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NCAM (C-20) is recommended for detection of NCAM 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). NCAM (C-20) is also recommended for detection of NCAM in additional species, including canine.

Suitable for use as control antibody for NCAM siRNA (h): sc-29404, NCAM siRNA (m): sc-36017, NCAM shRNA Plasmid (h): sc-29404-SH, NCAM shRNA Plasmid (m): sc-36017-SH, NCAM shRNA (h) Lentiviral Particles: sc-29404-V and NCAM shRNA (m) Lentiviral Particles: sc-36017-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, F9 cell lysate: sc-2245 or HeLa whole cell lysate: sc-2200.

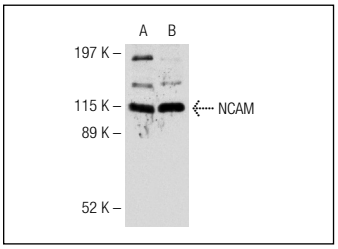
STORAGE

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.

DATA



NCAM (C-20): sc-1507. Western blot analysis of NCAM expression in F9 (**A**) and HeLa (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Ricard, C.S., et al. 2000. Selective expression of neural cell adhesion molecule (NCAM)-180 in optic nerve head astrocytes exposed to elevated hydrostatic pressure *in vitro*. Brain Res. Mol. Brain Res. 81: 62-79.
2. Takasaki, S., et al. 2000. CD56 directly interacts in the process of NCAM-positive target cell-killing by NK cells. Cell Biol. Int. 24: 101-108.
3. Cao, J.P., et al. 2008. Integrin β1 is involved in the signaling of glial cell line-derived neurotrophic factor. J. Comp. Neurol. 509: 203-210.
4. Toyooka, Y., et al. 2008. Identification and characterization of subpopulations in undifferentiated ES cell culture. Development 135: 909-918.
5. Gattenlöhner, S., et al. 2009. Specific detection of CD56 (NCAM) isoforms for the identification of aggressive malignant neoplasms with progressive development. Am. J. Pathol. 174: 1160-1171.
6. Campodónico, P.B., et al. 2010. The neural cell adhesion molecule is involved in the metastatic capacity in a murine model of lung cancer. Mol. Carcinog. 49: 386-397.
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8. Boshnjaku, V., et al. 2012. Nuclear localization of folate receptor α: a new role as a transcription factor. Sci. Rep. 2: 980.
9. Li, S., et al. 2013. The neural cell adhesion molecule (NCAM) associates with and signals through p21-activated kinase 1 (Pak1). J. Neurosci. 33: 790-803.