SANTA CRUZ BIOTECHNOLOGY, INC.

NCAM (H-300): sc-10735

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-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.

APPLICATIONS

NCAM (H-300) 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 (H-300) is also recommended for detection of NCAM in additional species, including canine, bovine and avian.

Suitable for use as control antibody for NCAM siRNA (h): sc-29404, NCAM siRNA (m): sc-36017, NCAM siRNA (r): sc-156119, NCAM shRNA Plasmid (h): sc-29404-SH, NCAM shRNA Plasmid (m): sc-36017-SH, NCAM shRNA Plasmid (r): sc-156119-SH, NCAM shRNA (h) Lentiviral Particles: sc-29404-V, NCAM shRNA (m) Lentiviral Particles: sc-36017-V and NCAM shRNA (r) Lentiviral Particles: sc-156119-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: NCAM (h): 293T Lysate: sc-115782, NCAM (m): 293T Lysate: sc-121950 or IMR-32 cell lysate: sc-2409.

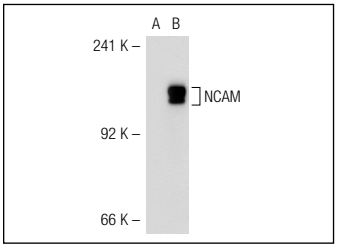
STORAGE

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

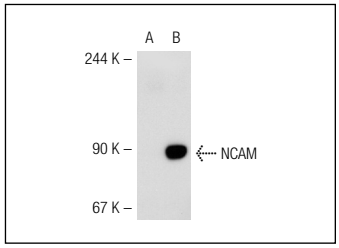
RESEARCH USE

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

DATA



NCAM (H-300): sc-10735. Western blot analysis of NCAM expression in non-transfected: sc-117752 (**A**) and human NCAM transfected: sc-115782 (**B**) 293T whole cell lysates.



NCAM (H-300): sc-10735. Western blot analysis of NCAM expression in non-transfected: sc-117752 (**A**) and mouse NCAM transfected: sc-121950 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Gattenlohner, S., et al. 2003. NCAM(CD56) and RUNX1(AML1) are up-regulated in human ischemic cardiomyopathy and a rat model of chronic cardiac ischemia. Am. J. Pathol. 163: 1081-1090.
2. Horsford, D.J., et al. 2004. Chx10 repression of Mitf is required for the maintenance of mammalian neuroretinal identity. Development 132: 177-187.
3. Hinkle, C.L., et al. 2006. Metalloprotease-induced ectodomain shedding of neural cell adhesion molecule (NCAM). J. Neurobiol. 66: 1378-1395.
4. Pouvelle, B., et al. 2007. Neural cell adhesion molecule, a new cytoadhesion receptor for plasmodium falciparum-infected erythrocytes capable of aggregation. Infect. Immun. 75: 3516-3522.
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. Farina, F., et al. 2009. Characterization of prion protein-enriched domains, isolated from rat cerebellar granule cells in culture. J. Neurochem. 110: 1038-1048.
7. Gao, W., et al. 2010. Identification of NCAM that interacts with the PHE-CoV spike protein. Virol. J. 7: 254.

PROTOCOLS

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