SANTA CRUZ BIOTECHNOLOGY, INC.

NCAM (ERIC 1): sc-106

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.

SOURCE

NCAM (ERIC 1) is a mouse monoclonal antibody raised against CD56 positive cells of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NCAM (ERIC 1) is available conjugated to either phycoerythrin (sc-106 PE), fluorescein (sc-106 FITC), Alexa Fluor® 546 (sc-106 AF546) or Alexa Fluor® 594 (sc-106 AF594), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-106 AF680) or Alexa Fluor® 790 (sc-106 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, NCAM (ERIC 1) is available conjugated to biotin (sc-106 B), 200 µg/ml, for WB, IHC(P) and ELISA.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

NCAM (ERIC 1) is recommended for detection of NCAM of 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10^6 cells); non cross-reactive with NCAM of mouse origin.

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.

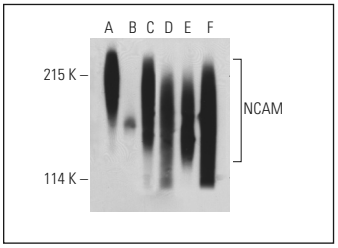
Molecular Weight of NCAM soluble fragment: 110 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410, IMR-32 cell lysate: sc-2409 or U-87 MG cell lysate: sc-2411.

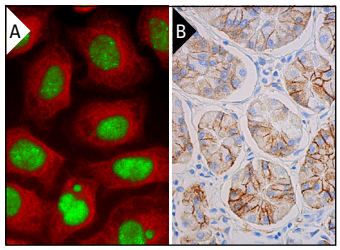
STORAGE

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

DATA



NCAM (ERIC 1): sc-106. Western blot analysis of NCAM expression in IMR-32 (**A**), U-87 MG (**B**), SK-N-SH (**C**), SHP-77 (**D**) and BE (2)-M17 (**F**) whole cell lysates and human heart tissue extract (**E**). Detection reagent used: m-IgG_1 BP-HRP: sc-525408.



p53 (DO-1) Alexa Fluor® 488: sc-126 AF488 and NCAM (ERIC 1) PE: sc-106 PE. Direct immunofluorescence staining of formalin-fixed HeLa cells showing nuclear (green) and membrane (red) localization (**A**). NCAM (ERIC 1): sc-106. Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing membrane and cytoplasmic staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Rose, C., et al. 1994. A novel antigen defined by monoclonal antibody CR101 is associated with small cell lung carcinoma. Hybridoma 13: 221-227.
2. Lee, S.W., et al. 2018. MicroRNAs overcome cell fate barrier by reducing EZH2-controlled REST stability during neuronal conversion of human adult fibroblasts. Dev. Cell 46: 73-84.
3. Holland, B.C., et al. 2019. Age and sex have no impact on expression levels of markers of immune cell infiltration and immune checkpoint pathways in patients with muscle-invasive urothelial carcinoma of the bladder treated with radical cystectomy. Cancer Immunol. Immunother. 68: 991-997.
4. Tiklová, K., et al. 2020. Single cell transcriptomics identifies stem cell-derived graft composition in a model of Parkinson's disease. Nat. Commun. 11: 2434.
5. Nato, G., et al. 2021. Immune-tolerance to human iPS-derived neural progenitors xenografted into the immature cerebellum is overridden by species-specific differences in differentiation timing. Sci. Rep. 11: 651.
6. Brot, S., et al. 2022. Long-term evaluation of intranigral transplantation of human iPSC-derived dopamine neurons in a Parkinson's disease mouse model. Cells 11: 1596.
7. Condurat, A.L., et al. 2023. Verteporfin-induced proteotoxicity impairs cell homeostasis and survival in neuroblastoma subtypes independent of YAP/TAZ expression. Sci. Rep. 13: 3760.
8. Park, S., et al. 2024. Preclinical and dose-ranging assessment of hESC-derived dopaminergic progenitors for a clinical trial on Parkinson's disease. Cell Stem Cell 31: 25-38.e8.

RESEARCH USE

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