SANTA CRUZ BIOTECHNOLOGY, INC.

NCAM-L1 (UJ127.11): sc-53386

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Cell adhesion molecules are a family of closely related cell surface glycoproteins involved in cell-cell interactions during growth and are thought to play an important role in embryogenesis and development. Neuronal cell adhesion molecule (NCAM) expression is observed in a variety of human tumors, including neuroblastomas, rhabdomyosarcomas, Wilm's tumors, Ewing's sarcomas and some primitive myeloid malignancies. The NCAM-L1 adhesion molecule (CD171) plays an important role in axon guidance and cell migration in the nervous system. The presence of NCAM-L1 might contribute to tumor progression by promoting cell adhesion and migration and is known to be expressed by neurons, neuroblastomas and other malignant tumors.

CHROMOSOMAL LOCATION

Genetic locus: L1CAM (human) mapping to Xq28.

SOURCE

NCAM-L1 (UJ127.11) is a mouse monoclonal antibody raised against fetal brain 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-L1 (UJ127.11) is available conjugated to agarose (sc-53386 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53386 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53386 PE), fluorescein (sc-53386 FITC), Alexa Fluor® 488 (sc-53386 AF488), Alexa Fluor® 546 (sc-53386 AF546), Alexa Fluor® 594 (sc-53386 AF594) or Alexa Fluor® 647 (sc-53386 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53386 AF680) or Alexa Fluor® 790 (sc-53386 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

NCAM-L1 (UJ127.11) is recommended for detection of NCAM-L1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for NCAM-L1 siRNA (h): sc-43172, NCAM-L1 shRNA Plasmid (h): sc-43172-SH and NCAM-L1 shRNA (h) Lentiviral Particles: sc-43172-V.

Molecular Weight of NCAM-L1 proteolytically cleaved form: 85 kDa.

Molecular Weight of NCAM-L1 full length isoforms: 140/180/220 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, SH-SY5Y cell lysate: sc-3812 or T98G cell lysate: sc-2294.

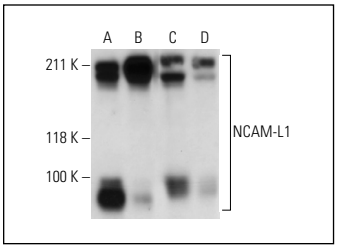
STORAGE

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

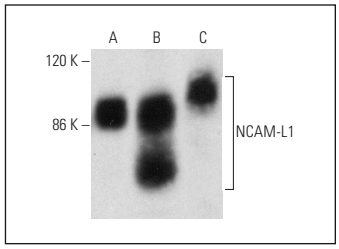
RESEARCH USE

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

DATA



NCAM-L1 (UJ127.11): sc-53386. Western blot analysis of NCAM-L1 expression in IMR-32 (**A**), SH-SY5Y (**B**), T98G (**C**) and SK-N-SH (**D**) whole cell lysates.



NCAM-L1 (UJ127.11): sc-53386. Western blot analysis of NCAM-L1 expression in HeLa (**A**), HT-29 (**B**) and Hep G2 (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Graner, M.W., et al. 2009. Proteomic and immunologic analyses of brain tumor exosomes. FASEB J. 23: 1541-1557.
2. Yang, M., et al. 2011. L1 stimulation of human glioma cell motility correlates with FAK activation. J. Neurooncol. 105: 27-44.
3. Dippel, V., et al. 2013. Influence of L1-CAM expression of breast cancer cells on adhesion to endothelial cells. J. Cancer Res. Clin. Oncol. 139: 107-121.
4. Dou, X., et al. 2018. L1 coupling to ankyrin and the spectrin-Actin cytoskeleton modulates ethanol inhibition of L1 adhesion and ethanol teratogenesis. FASEB J. 32: 1364-1374.
5. Linneberg, C., et al. 2019. L1CAM-mediated developmental processes of the nervous system are differentially regulated by proteolytic processing. Sci. Rep. 9: 3716.
6. Pusey, M.A., et al. 2019. Ectopic expression of L1CAM ectodomain alters differentiation and motility, but not proliferation, of human neural progenitor cells. Int. J. Dev. Neurosci. 78: 49-64.
7. Dou, X., et al. 2020. Neuroprotective peptide NAPVSIPQ antagonizes ethanol inhibition of L1 adhesion by promoting the dissociation of L1 and Ankyrin-G. Biol. Psychiatry 87: 656-665.
8. Perrotte, M., et al. 2020. Profile of pathogenic proteins in total circulating extracellular vesicles in mild cognitive impairment and during the progression of Alzheimer's disease. Neurobiol. Aging 86: 102-111.
9. Deschepper, F.M., et al. 2020. L1CAM as an E-Selectin ligand in colon cancer. Int. J. Mol. Sci. 21: 8286.
10. Omoteyama, K., et al. 2020. Identification of novel substrates of a disintegrin and metalloprotease 17 by specific labeling of surface proteins. Heliyon 6: e05804.

PROTOCOLS

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