NCAM-L1 (D-5): sc-374046

BACKGROUND

Cell adhesion molecules are a family of closely related cell surface glyco-proteins 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; L1cam (mouse) mapping to X A7.3.

SOURCE

NCAM-L1 (D-5) is a mouse monoclonal antibody raised against amino acids 921-1120 mapping near the C-terminus of NCAM-L1 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 (D-5) is available conjugated to agarose (sc-374046 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-374046 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374046 PE), fluorescein (sc-374046 FITC), Alexa Fluor® 488 (sc-374046 AF488), Alexa Fluor® 546 (sc-374046 AF546), Alexa Fluor® 594 (sc-374046 AF594) or Alexa Fluor® 647 (sc-374046 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374046 AF680) or Alexa Fluor® 790 (sc-374046 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

NCAM-L1 (D-5) is recommended for detection of NCAM-L1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) (start-ing dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for NCAM-L1 siRNA (h): sc-43172, NCAM-L1 siRNA (m): sc-43173, NCAM-L1 siRNA (r): sc-156119, NCAM-L1 shRNA Plasmid (h): sc-43172-SH, NCAM-L1 shRNA Plasmid (m): sc-43173-SH, NCAM-L1 shRNA Plasmid (r): sc-156119-SH, NCAM-L1 shRNA (h) Lentiviral Particles: sc-43172-V, NCAM-L1 shRNA (m) Lentiviral Particles: sc-43173-V and NCAM-L1 shRNA (r) Lentiviral Particles: sc-156119-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: Hep G2 cell lysate: sc-2227, Neuro-2A whole cell lysate: sc-364185 or EOC 20 whole cell lysate: sc-364187.

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. 2) Immunopre-cipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immuno-histochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA
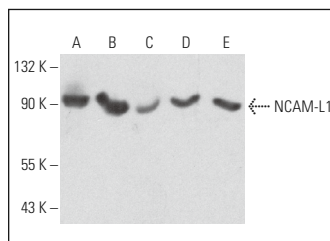
NCAM-L1 (D-5): sc-374046. Western blot analysis of NCAM-L1 expression in Hep G2 (**A**), Neuro-2A (**B**), EOC 20 (**C**), C6 (**D**) and H19-7/IGF-IR (**E**) whole cell lysates.
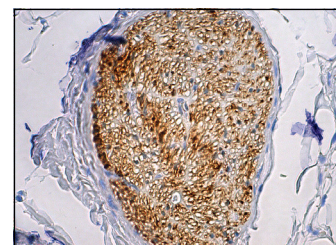
NCAM-L1 (D-5): sc-374046. Immunoperoxidase stain-ing of formalin fixed, paraffin-embedded human kidney tissue showing membrane staining of nerve cells in ganglion.

SELECT PRODUCT CITATIONS

1. Roberts, C.M., et al. 2016. TWIST1 drives cisplatin resistance and cell survival in an ovarian cancer model, via upregulation of GAS6, L1CAM, and Akt signalling. Sci. Rep. 6: 37652.

2. Torres, V.I., et al. 2021. Selective surface and intraluminal localization of Wnt ligands on small extracellular vesicles released by HT-22 hippocampal neurons. Front. Cell Dev. Biol. 9: 735888.

3. Sun, X., et al. 2022. Generation of the chondroprotective proteomes by activating PI3K and TNFα signaling. Cancers 14: 3039.

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.

PROTOCOLS

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

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