

NCAM-L1 (74-5H7): sc-59868

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.

REFERENCES

1. Kemshead, J.T., et al. 1983. Monoclonal antibody UJ 127:11 detects a 220,000-240,000 kDa glycoprotein present on a sub-set of neuroectodermally derived cells. *Int. J. Cancer* 31: 187-195.
2. Bourne, S., et al. 1989. Monoclonal antibodies M340 and UJ181.4 recognize antigens associated with primitive neuroectodermal tumours/tissues. *Hybridoma* 8: 415-426.
3. Patel, K., et al. 1993. Vase mini-exon usage by NCAM is not restricted to tumours of neuroectodermal origin. *Int. J. Cancer* 54: 772-777.
4. Jorgensen, O.S. 1995. Neural cell adhesion molecule (NCAM) as a quantitative marker in synaptic remodeling. *Neurochem. Res.* 20: 533-547.
5. Edelman, G.M. and Jones, F.S. 1995. Developmental control of NCAM expression by HOX and PAX gene products. *Philos. Trans. R. Soc. Lond., B, Biol. Sci.* 349: 305-312.
6. Dominici, C., et al. 1996. Bone marrow micrometastases in a patient with localized Wilms' tumor. *Med. Pediatr. Oncol.* 26: 125-128.

CHROMOSOMAL LOCATION

Genetic locus: L1CAM (human) mapping to Xq28; L1cam (mouse) mapping to X A7.3.

SOURCE

NCAM-L1 (74-5H7) is a mouse monoclonal antibody raised against native full length NCAM-L1 of chicken origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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.

APPLICATIONS

NCAM-L1 (74-5H7) is recommended for detection of the cytoplasmic domain of NCAM-L1 of mouse, rat, human, equine and avian 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)] 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 siRNA (r): sc-156119, NCAM-L1 shRNA Plasmid (h): sc-43172-SH, NCAM-L1 shRNA Plasmid (m): sc-43173-SH, NCAM 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 shRNA (r) Lentiviral Particles: sc-156119-V.

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

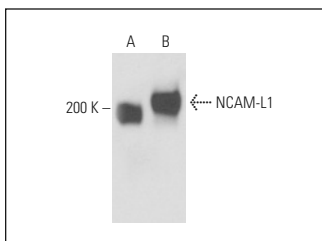
Molecular Weight of NCAM-L1 proteolytically cleaved form: 85 kDa.

Positive Controls: mouse brain extract: sc-2253, IMR-32 cell lysate: sc-2409 or F9 cell lysate: sc-2245.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



NCAM-L1 (74-5H7): sc-59868. Western blot analysis of NCAM-L1 expression in mouse brain tissue extract (A) and IMR-32 whole cell lysate (B).

SELECT PRODUCT CITATIONS

1. 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.
2. Hauser, M., et al. 2018. The spectrin-Actin-based periodic cytoskeleton as a conserved nanoscale scaffold and ruler of the neural stem cell lineage. *Cell Rep.* 24: 1512-1522.

CONJUGATES

See **NCAM-L1 (D-5): sc-374046** for NCAM-L1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.