SANTA CRUZ BIOTECHNOLOGY, INC.

NEDD4-L (C-8): sc-514954

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

NEDD4-L (neural precursor cell expressed, developmentally down-regulated 4-like), also known as RSP5, NEDD4-2 or NEDL3, is a 975 amino acid protein that localizes to the cytoplasm and contains four WW domains, one HECT domain and one C2 domain. Expressed ubiquitously with highest expression in pancreas, prostate and kidney, NEDD4-L functions as an E3 ubiquitin-protein ligase that, characteristic of E3 ligase proteins, accepts ubiquitin (in the form of a thioester) from an E2 ubiquitin-conjugating enzyme and transfers that ubiquitin residue to substrates targeted for degradation. Through its ability to ubiquitinate and induce the proteasome-dependent degradation of proteins such as Smad2 and TGFβ RII, NEDD4-L is thought to inhibit the TGFβ signaling pathway, thereby regulating the signaling pathways that control cell growth and differentiation. NEDD4-L is expressed as eight isoforms due to alternative splicing events.

CHROMOSOMAL LOCATION

Genetic locus: NEDD4L (human) mapping to 18q21.31; Nedd4l (mouse) mapping to 18 E1.

SOURCE

NEDD4-L (C-8) is a mouse monoclonal antibody raised against amino acids 213-350 mapping within an internal region of NEDD4-L 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.

NEDD4-L (C-8) is available conjugated to agarose (sc-514954 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514954 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514954 PE), fluorescein (sc-514954 FITC), Alexa Fluor® 488 (sc-514954 AF488), Alexa Fluor® 546 (sc-514954 AF546), Alexa Fluor® 594 (sc-514954 AF594) or Alexa Fluor® 647 (sc-514954 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514954 AF680) or Alexa Fluor® 790 (sc-514954 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

NEDD4-L (C-8) is recommended for detection of NEDD4-L 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for NEDD4-L siRNA (h): sc-75894, NEDD4-L siRNA (m): sc-149898, NEDD4-L shRNA Plasmid (h): sc-75894-SH, NEDD4-L shRNA Plasmid (m): sc-149898-SH, NEDD4-L shRNA (h) Lentiviral Particles: sc-75894-V and NEDD4-L shRNA (m) Lentiviral Particles: sc-149898-V.

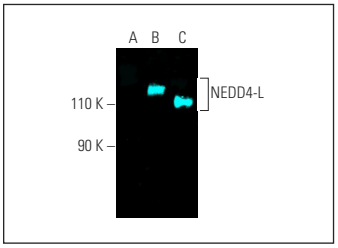
Molecular Weight of NEDD4-L: 112 kDa.

Positive Controls: NEDD4-L (h2): 293T Lysate: sc-173451 or NEDD4-L (m2): 293T Lysate: sc-121991.

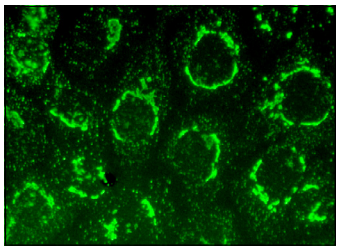
STORAGE

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

DATA



NEDD4-L (C-8): sc-514954. Fluorescent western blot analysis of NEDD4-L expression in non-transfected: sc-117752 (**A**), human NEDD4-L transfected: sc-173451 (**B**) and mouse NEDD4-L transfected: sc-121991 (**C**) 293T whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG_1 BP-CFL 647: sc-533664.



NEDD4-L (C-8): sc-514954. Immunofluorescence staining of formalin-fixed A-431 cells showing perinuclear region and vesicles localization.

SELECT PRODUCT CITATIONS

1. Sun, M., et al. 2016. Type I γ phosphatidylinositol phosphate 5-kinase i5 controls the ubiquitination and degradation of the tumor suppressor mitogen-inducible gene 6. J. Biol. Chem. 291: 21461-21473.
2. Shimizu, A., et al. 2020. Identification of transmembrane protein 168 mutation in familial Brugada syndrome. FASEB J. 34: 6399-6417.
3. Cheerathodi, M., et al. 2021. Epstein-Barr virus LMP1 modulates the CD63 interactome. Viruses 13: 675.
4. Nguyen, L.K.C., et al. 2021. Transmembrane protein 168 mutation reduces cardiomyocyte cell surface expression of $Na_v1.5$ through αB-crystallin intracellular dynamics. J. Biochem. 170: 577-585.
5. Yu, Z., et al. 2022. Protective effect of hepatocyte-enriched lncRNA-Mir122hg by promoting hepatocyte proliferation in acute liver injury. Exp. Mol. Med. 54: 2022-2035.
6. Nyenhuis, D.A., et al. 2023. HECT domain interaction with ubiquitin binding sites on Tsg101-UEV controls HIV-1 egress, maturation and infectivity. J. Biol. Chem. 299: 102901.
7. Barroso, E., et al. 2023. CHOP upregulation and dysregulation of the mature form of the SNAT2 amino acid transporter in the placentas from small for gestational age newborns. Cell Commun. Signal. 21: 326.
8. Chen, Z., et al. 2024. NEDD4L contributes to ferroptosis and cell growth inhibition in esophageal squamous cell carcinoma by facilitating xCT ubiquitination. Cell Death Discov. 10: 473.

RESEARCH USE

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