

NEDD4-1 (H-135): sc-25508

BACKGROUND

NEDD4 is an E3 ubiquitin-protein ligase that contains several family members including NEDD4-1 and NEDD4-2, both of which are HECT-type E3 ligases with similar structure and function. Located primarily in muscle fibers, NEDD4 is a ubiquitin acceptor that transports ubiquitin from E2 ligase enzymes to various substrates throughout the body, helping to regulate degradation of plasma membranes. Thought to play a role in the budding of many retroviruses, NEDD4 interacts with the viral protein motif P-P-P-Y, an interaction that is important for viral maturation. NEDD4 contains three WW domains to which many ubiquitin-receiving proteins, including NEDD4 family interacting protein-1 (NDFIP1), bind and interact. NDFIP1 is strongly expressed in surviving neurons around a site of injury, suggesting that ubiquitination may be a possible survival strategy and NDFIP1 may act as a neuroprotective protein.

CHROMOSOMAL LOCATION

Genetic locus: NEDD4 (human) mapping to 15q21.3; Nedd4 (mouse) mapping to 9 D.

SOURCE

NEDD4-1 (H-135) is a rabbit polyclonal antibody raised against amino acids 560-694 of NEDD4-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG 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

NEDD4-1 (H-135) is recommended for detection of NEDD4-1 of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

NEDD4-1 (H-135) is also recommended for detection of NEDD4 -1 in additional species, including equine.

Suitable for use as control antibody for NEDD4 siRNA (h): sc-41079, NEDD4 siRNA (m): sc-41080, NEDD4 shRNA Plasmid (h): sc-41079-SH, NEDD4 shRNA Plasmid (m): sc-41080-SH, NEDD4 shRNA (h) Lentiviral Particles: sc-41079-V and NEDD4 shRNA (m) Lentiviral Particles: sc-41080-V.

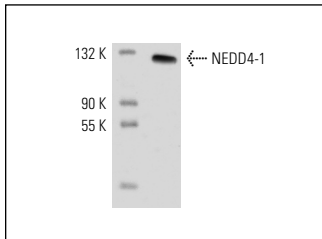
Molecular Weight of NEDD4-1: 120 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224 or KNRK whole cell lysate: sc-2214.

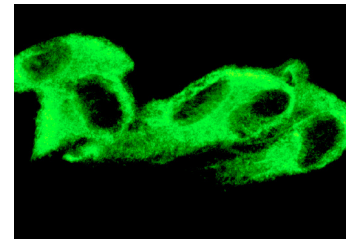
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



NEDD4-1 (H-135): sc-25508. Western blot analysis of NEDD4 expression in KNRK whole cell lysate.



NEDD4-1 (H-135): sc-25508. Immunofluorescence staining of methanol-fixed Caki-1 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Amodio, N., et al. 2010. Oncogenic role of the E3 ubiquitin ligase NEDD4-1, a PTEN negative regulator, in non-small-cell lung carcinomas. *Am. J. Pathol.* 177: 2622-2634.
- Simonin, A., et al. 2010. Nedd4-1 and β -arrestin-1 are key regulators of Na⁺/H⁺ exchanger 1 ubiquitylation, endocytosis, and function. *J. Biol. Chem.* 285: 38293-38303.
- Vina-Vilaseca, A., et al. 2011. Protein kinase C dependent ubiquitination and clathrin-mediated endocytosis of the cationic amino acid transporter CAT-1. *J. Biol. Chem.* 286: 8697-8706.
- Miraglia, E., et al. 2011. Statins exhibit anticancer effects through modifications of the pAkt signaling pathway. *Int. J. Oncol.* 40: 867-875.
- Wang, C., et al. 2012. The Nedd4-like ubiquitin E3 ligases target angiomin/p130 to ubiquitin-dependent degradation. *Biochem. J.* 444: 279-289.
- Leonard, M. K., et al. 2013. δ Np63 α represses nuclear translocation of PTEN by inhibition of NEDD4-1 in keratinocytes. *Arch. Dermatol. Res.* 305: 733-739.

PROTOCOLS

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