

NEDD4-L (h3): 293T Lysate: sc-173458

BACKGROUND

NEDD4-L (neural precursor cell expressed, developmentally downregulated 4-like), also known as RSP5, NEDD4-2 or NEDL3, is a 975 amino acid protein that localizes to the cytoplasm and contains 4 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 TGF β RII, NEDD4-L is thought to inhibit the TGF β 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.

REFERENCES

1. Chen, H., et al. 2001. NEDD4-L on human chromosome 18q21 has multiple forms of transcripts and is a homologue of the mouse NEDD4-2 gene. *Eur. J. Hum. Genet.* 9: 922-930.
2. Harvey, K.F., et al. 2002. N4WBP5, a potential target for ubiquitination by the NEDD4 family of proteins, is a novel Golgi-associated protein. *J. Biol. Chem.* 277: 9307-9317.
3. Qi, H., et al. 2003. Androgens differentially regulate the expression of NEDD4-L transcripts in LNCaP human prostate cancer cells. *Mol. Cell. Endocrinol.* 210: 51-62.
4. van Bemmelen, M.X., et al. 2004. Cardiac voltage-gated sodium channel Nav1.5 is regulated by NEDD4-2 mediated ubiquitination. *Circ. Res.* 95: 284-291.
5. Hryciw, D.H., et al. 2004. NEDD4-2 functionally interacts with CIC-5: involvement in constitutive albumin endocytosis in proximal tubule cells. *J. Biol. Chem.* 279: 54996-55007.
6. Ichimura, T., et al. 2005. 14-3-3 proteins modulate the expression of epithelial Na⁺ channels by phosphorylation-dependent interaction with NEDD4-2 ubiquitin ligase. *J. Biol. Chem.* 280: 13187-13194.
7. Zhou, R., et al. 2007. NEDD4-2 catalyzes ubiquitination and degradation of cell surface ENaC. *J. Biol. Chem.* 282: 20207-20212.
8. Dahlberg, J., et al. 2007. Polymorphism in NEDD4L is associated with increased salt sensitivity, reduced levels of P-renin and increased levels of Nt-proANP. *PLoS ONE* 2: e432.
9. Araki, N., et al. 2008. Expression, transcription, and possible antagonistic interaction of the human NEDD4-L gene variant: implications for essential hypertension. *Hypertension* 51: 773-777.

CHROMOSOMAL LOCATION

Genetic locus: NEDD4L (human) mapping to 18q21.31.

PRODUCT

NEDD4-L (h3): 293T Lysate represents a lysate of human NEDD4-L transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

NEDD4-L (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive NEDD4-L antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.