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NEDD4 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9934b

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P46934
Other Accession	Q62940, P46935
Reactivity	Human, Mouse
Predicted	Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB15462
Calculated MW	149114
Antigen Region	1288-1319

Additional Information

Gene ID	4734
Other Names	E3 ubiquitin-protein ligase NEDD4, 632-, Cell proliferation-inducing gene 53 protein, Neural precursor cell expressed developmentally down-regulated protein 4, NEDD-4, NEDD4, KIAA0093, NEDD4-1
Target/Specificity	This NEDD4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1288-1319 amino acids from the C-terminal region of human NEDD4.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	NEDD4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NEDD4

Synonyms	KIAA0093, NEDD4-1, RPF1 {ECO:0000303|Pub
Function	E3 ubiquitin-protein ligase which accepts ubiquitin from an E2 ubiquitin-conjugating enzyme in the form of a thioester and then directly transfers the ubiquitin to targeted substrates. Specifically ubiquitinates 'Lys-63' in target proteins (PubMed:19920177, PubMed:21399620, PubMed:23644597). Involved in the pathway leading to the degradation of VEGFR-2/KDFR, independently of its ubiquitin-ligase activity. Monoubiquitinates IGF1R at multiple sites, thus leading to receptor internalization and degradation in lysosomes (By similarity). Ubiquitinates FGFR1, leading to receptor internalization and degradation in lysosomes (PubMed:21765395). Promotes ubiquitination of RAPGEF2 (PubMed:11598133). According to PubMed:18562292 the direct link between NEDD4 and PTEN regulation through polyubiquitination described in PubMed:17218260 is questionable. Involved in ubiquitination of ERBB4 intracellular domain E4ICD (By similarity). Part of a signaling complex composed of NEDD4, RAP2A and TNIK which regulates neuronal dendrite extension and arborization during development (By similarity). Ubiquitinates TNK2 and regulates EGF-induced degradation of EGFR and TNF2 (PubMed:20086093). Ubiquitinates BRAT1 and this ubiquitination is enhanced in the presence of NDFIP1 (PubMed:25631046). Ubiquitinates DAZAP2, leading to its proteasomal degradation (PubMed:11342538). Ubiquitinates POLR2A (PubMed:19920177). Functions as a platform to recruit USP13 to form an NEDD4-USP13 deubiquitination complex that plays a critical role in cleaving the 'Lys-48'-linked ubiquitin chains of VPS34 and then stabilizing VPS34, thus promoting the formation of autophagosomes (PubMed:32101753).
Cellular Location	Cytoplasm. Nucleus. Cell membrane {ECO:0000250|UniProtKB:P46935}; Peripheral membrane protein {ECO:0000250|UniProtKB:P46935}. Note=Predominantly cytoplasmic but also located in the nucleus (PubMed:11342538). Recruited to the plasma membrane by GRB10. Once complexed with GRB10 and IGF1R, follows IGF1R internalization, remaining associated with early endosomes. Uncouples from IGF1R-containing endosomes before the sorting of the receptor to the lysosomal compartment (By similarity). May be recruited to exosomes by NDFIP1 (PubMed:18819914). {ECO:0000250|UniProtKB:P46935, ECO:0000269|PubMed:11342538, ECO:0000269|PubMed:18819914}

Background

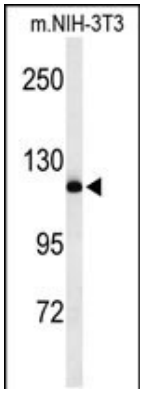
Nedd4 is one of a group of mouse genes that show developmentally regulated expression in mouse embryonic brain. Nedd4 is expressed in various other embryonic tissues and persists in most adult tissues.

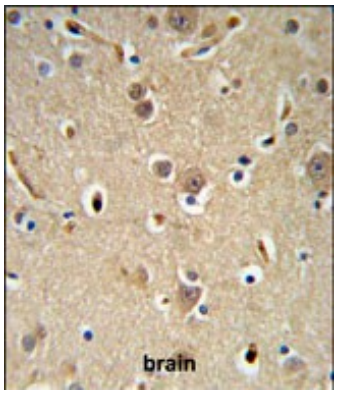
References

Lin, Q., et al. Mol. Cell. Biol. 30(6):1541-1554(2010)
Crowther-Swanepoel, D., et al. Nat. Genet. 42(2):132-136(2010)
Edwin, F., et al. J. Biol. Chem. 285(1):255-264(2010)
Guo, Y.Y., et al. Zhongguo Yi Xue Ke Xue Yuan Xue Bao 31(6):679-685(2009)

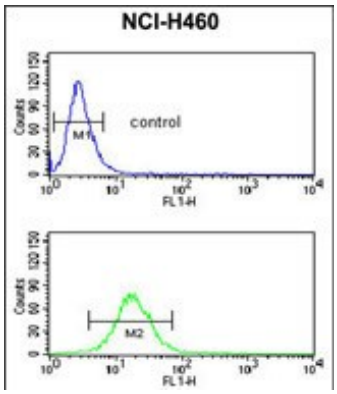
Images

Western blot analysis of NEDD4 Antibody (C-term) (Cat. #AP9934b) in mouse NIH-3T3 cell line lysates (35ug/lane). NEDD4 (arrow) was detected using the purified Pab.





NEDD4 Antibody (C-term)(Cat. #AP9934b) IHC analysis in formalin fixed and paraffin embedded brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the NEDD4 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



NEDD4 Antibody (C-term) (Cat. #AP9934b) flow cytometric analysis of NCI-H460 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.