

NEDD4 Rabbit mAb

Catalog # AP76300

Product Information

Application WB, IP **Primary Accession** P46934

Reactivity Human, Mouse, Rat

Host Rabbit

Clonality Monoclonal Antibody

Calculated MW 149114

Additional Information

Gene ID 4734

Other Names NEDD4

Dilution WB~~1/500-1/1000 IP~~1/20

Format 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and

0.05% BSA.

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: <u>23644597</u>). 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:<u>21765395</u>). 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

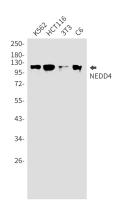
(PubMed:<u>20086093</u>). Ubiquitinates BRAT1 and this ubiquitination is enhanced in the presence of NDFIP1 (PubMed:<u>25631046</u>). Ubiquitinates DAZAP2,

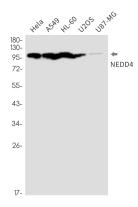
leading to its proteasomal degradation (PubMed:<u>11342538</u>). Ubiquitinates POLR2A (PubMed:<u>19920177</u>). Functions as a platform to recruit USP13 to form an NEDD4-USP13 deubiquitination complex that plays a critical role in cleaving the 'Lys-48'-linked ubiquitin chains of VPS34 and then stabilizing VPS34, thus promoting the formation of autophagosomes (PubMed:<u>32101753</u>).

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}

Images





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