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Anti-NEDD8 Antibody

Catalog # AP59634

Product Information

Application	WB, IHC, IF/IC
Primary Accession	Q15843
Reactivity	Human, Mouse, Rat, Rabbit, Bovine, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	9072

Additional Information

Gene ID	4738
Other Names	NEDD8; Neddylin; Neural precursor cell expressed developmentally down-regulated protein 8; NEDD-8; Ubiquitin-like protein Nedd8
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human NEDD8. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000), IHC (1/100 - 1/200), IP (1/10 - 1/100) IHC~~WB (1/500 - 1/1000), IHC (1/100 - 1/200), IP (1/10 - 1/100) IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

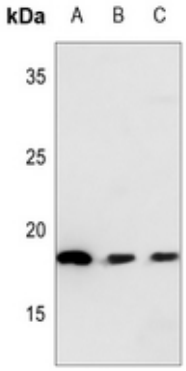
Name	NEDD8 {ECO:0000303|PubMed:9694792, ECO:0000312|HGNC:HGNC:7732}
Function	Ubiquitin-like protein which plays an important role in cell cycle control and embryogenesis via its conjugation to a limited number of cellular proteins, such as cullins or p53/TP53 (PubMed:10318914, PubMed:10597293, PubMed:11953428, PubMed:14690597, PubMed:15242646, PubMed:9694792, PubMed:38605244, PubMed:38316879). Attachment of NEDD8 to cullins is critical for the recruitment of E2 to the cullin-RING- based E3 ubiquitin-protein ligase complex, thus facilitating polyubiquitination and proteasomal degradation of cyclins and other regulatory proteins (PubMed:10318914, PubMed:10597293, PubMed:11953428, PubMed:20688984, PubMed:9694792, PubMed:38605244, PubMed:38316879). Attachment of NEDD8 to p53/TP53 inhibits p53/TP53 transcriptional activity (PubMed:15242646). Covalent attachment to its substrates requires prior activation by the E1 complex UBE1C-APPBP1 and linkage to the E2 enzyme UBE2M (PubMed:14690597). Neddylates EGFR

resulting in protein stabilization and translocation to the cell membrane (PubMed:28891468).

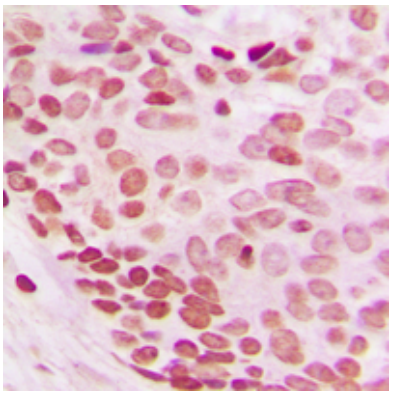
Cellular Location Nucleus. Note=Mainly nuclear.

Tissue Location Highly expressed in heart, skeletal muscle, spleen, thymus, prostate, testis, ovary, colon and leukocytes

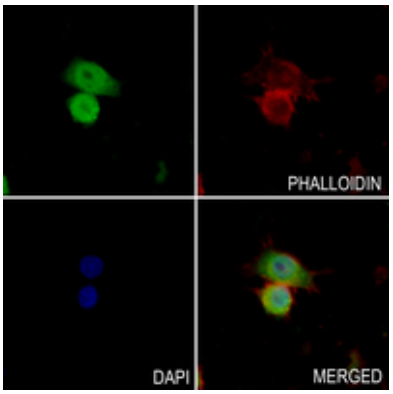
Images



Western blot analysis of NEDD8 expression in mouse kidney (A), mouse testis (B), rat kidney (C) whole cell lysates. (Predicted band size: 9 kD; Observed band size: 18 kD)

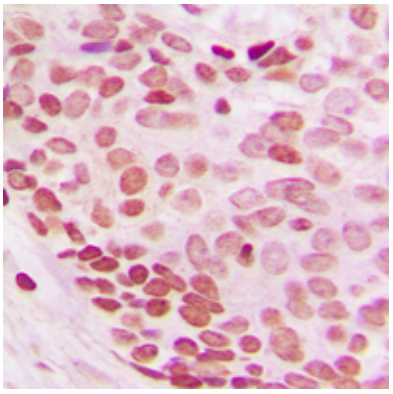


Immunohistochemical analysis of NEDD8 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of NEDD8 staining in RAW264.7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

Immunohistochemical analysis of NEDD8 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



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