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NEDD8 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1665a

Product Information

Application	WB, IHC, FC, ICC, E
Primary Accession	Q15843
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	5B8
Isotype	IgG1
Calculated MW	9072
Description	Ubiquitin-like protein which plays an important role in cell cycle control and embryogenesis. Covalent attachment to its substrates requires prior activation by the E1 complex UBE1C-APPBP1 and linkage to the E2 enzyme UBE2M. Attachment of NEDD8 to cullins activates their associated E3 ubiquitin ligase activity, and thus promotes polyubiquitination and proteasomal degradation of cyclins and other regulatory proteins.Tissue specificity: Highly expressed in heart, skeletal muscle, spleen, thymus, prostate, testis, ovary, colon and leukocytes.
Immunogen	Purified recombinant fragment of human NEDD8 expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	4738
Other Names	NEDD8, Neddylin, Neural precursor cell expressed developmentally down-regulated protein 8, NEDD-8, Ubiquitin-like protein Nedd8, NEDD8
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 ICC~~N/A E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	NEDD8 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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

References

1. Cell. 2009 Jul 23;138(2):389-403. 2. Biochem Biophys Res Commun. 2009 Apr 10;381(3):443-7.

Images

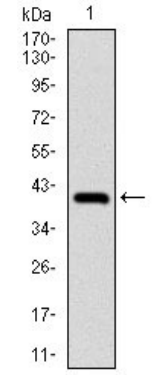


Figure 1: Western blot analysis using NEDD8 mAb against human NEDD8 (AA: 1-81) recombinant protein. (Expected MW is 40 kDa)

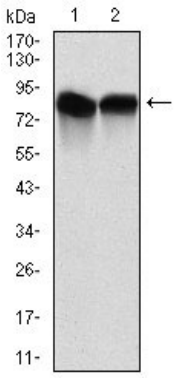
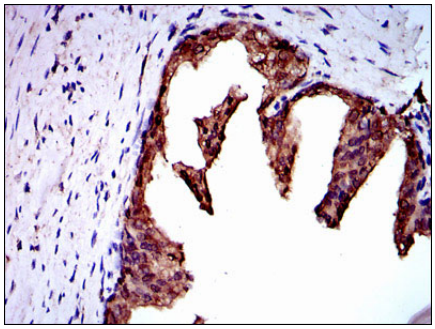


Figure 2: Western blot analysis using NEDD8 mouse mAb against C6 (1) and Hela (2) cell lysate.

Figure 3: Immunohistochemical analysis of paraffin-embedded prostate cancer tissues using NEDD8 mouse mAb with DAB staining.



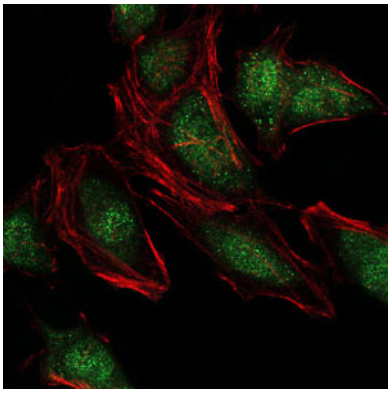


Figure 4: Immunofluorescence analysis of Hela cells using NEDD8 mouse mAb (green). Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

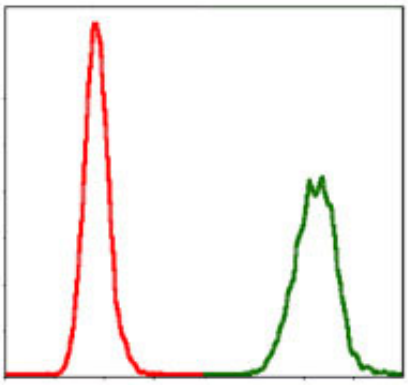


Figure 5: Flow cytometric analysis of Hela cells using NEDD8 mouse mAb (green) and negative control (red).

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