

**Anti-NEDD4 (RABBIT) Antibody - 600-401-B05S**
**Code:** 600-401-B05S

**Size:** 25 µL

**Product Description:** Anti-NEDD4 (RABBIT) Antibody - 600-401-B05S

**Concentration:** 0.64 mg/mL by UV absorbance at 280 nm

**PhysicalState:** Liquid (sterile filtered)

<b>Label</b>	Unconjugated
<b>Host</b>	Rabbit
<b>Gene Name</b>	NEDD4
<b>Species Reactivity</b>	human, horse, macaque
<b>Buffer</b>	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
<b>Stabilizer</b>	None
<b>Preservative</b>	0.01% (w/v) Sodium Azide
<b>Storage Condition</b>	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
<b>Synonyms</b>	rabbit anti-NEDD4 antibody, NEDD-4, NEDD 4, E3 ubiquitin protein ligase Nedd4 antibody, NEDD4-1 antibody, Neural precursor cell expressed developmentally down regulated 4 antibody, Cell proliferation-inducing gene 53 protein, HECT-type E3 ubiquitin transferase NEDD4, PIG53
<b>Application Note</b>	This affinity purified antibody has been tested for use in ELISA and western blotting using recombinant Nedd4 protein. Specific conditions for reactivity and detection of Nedd4 should be optimized by the end user. Expect a band approximately ~115 kDa in size corresponding to Nedd4 by western blotting in the appropriate cell lysate or extract.
<b>Background</b>	NEDD4 (neural precursor expressed, developmentally down-regulated protein 4, aliases: KIAA0093, MGC176705, NEDD4-1) is a gene that is highly expressed in early embryonic central nervous system. A family of NEDD4-like proteins has more recently been defined. NEDD4 and NEDD4-like proteins contain multiple functional domains including a calcium-dependent phospholipid and membrane binding domain (C2 domain), two to four protein binding domains (WW domains), and an E3 ubiquitin-protein ligase domain (HECT domain). NEDD4 and NEDD4-2 have been shown to down-regulate both neuronal voltage-gated Na <sup>+</sup> channels (NaVs) and epithelial Na <sup>+</sup> channels (ENaCs) in response to increased intracellular Na <sup>+</sup> concentrations. The WW domains of NEDD4 bind to PY motifs (amino acid sequence PPXY) found in multiple NaV and ENaC proteins, and ubiquitination of these proteins, mediated by the HECT domain of NEDD4, results in their internalization and removal from the plasma membrane. Mutation of the PY motifs in ENaC proteins is associated with Liddle's Syndrome, an autosomal-dominant form of hypertension. In addition to targeting sodium channels, NEDD4-2 has also been shown to negatively regulate TGF- signaling by targeting Smad2 for degradation. Mouse and human NEDD4 are cleaved by caspase proteins during apoptosis, although the significance of this cleavage is not clear.
<b>Purity And Specificity</b>	This product was affinity purified from monospecific antiserum by immunoaffinity chromatography. This antibody reacts with endogenous Nedd4 protein. A BLAST analysis was used to suggest reactivity with Nedd4 from human, horse and macaque based on a 100% homology with the immunizing sequence. Expect reactivity with Nedd4 from chimpanzee, rabbit, dog, and cattle based on a 94% homology with the immunizing sequence. Cross-reactivity with Nedd4 from other sources has not been determined.
<b>Assay Dilutions</b>	User Optimized
<b>ELISA</b>	1:20,000 – 1:35,000
<b>Western Blot</b>	1:300 to 1:500
<b>IF Microscopy</b>	User Optimized
<b>Other Assays</b>	User Optimized
<b>Expiration</b>	Expiration date is three (3) months from date of opening.
<b>Immunogen</b>	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a peptide corresponding to an internal portion of the Nedd4 protein.

## General Reference

Harvey K.F., and Kumar S. (1999) Nedd4-like proteins: an emerging family of ubiquitin-protein ligases implicated in diverse cellular functions. *Trends Cell Biol.* 9, 166-9. Dinudom, A. et al. (1998) Nedd4 mediates control of an epithelial Na<sup>+</sup> channel in salivary duct cells by cytosolic Na<sup>+</sup>. *Proc. Natl. Acad. Sci. USA* 95, 7169-73. Goulet C.C. et al. (1998) Inhibition of the epithelial Na<sup>+</sup> channel by interaction of Nedd4 with a PY motif deleted in Liddle's syndrome. *J. Biol. Chem.* 273, 30012-7.

## Related Products

200-301-268	Anti-AKT pS473 (MOUSE) Monoclonal Antibody - 200-301-268
610-4302	Anti-MOUSE IgG (H&L) (RABBIT) Antibody Peroxidase Conjugated - 610-4302
611-1302	Anti-RABBIT IgG (H&L) (GOAT) Antibody Peroxidase Conjugated - 611-1302
B304	NORMAL GOAT SERUM (NGS) - B304

## Related Links

NCBI - 114520609

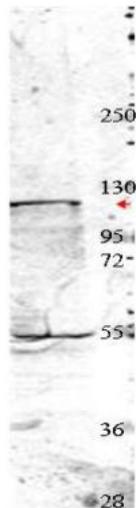
<http://www.ncbi.nlm.nih.gov/protein/114520609>

UniProtKB - <http://www.uniprot.org/uniprot/P46934>

GeneID - 4734

## Images

- 1 Western blot using Rockland's affinity purified anti-Nedd4 antibody shows detection of a 115 kDa band corresponding to endogenous Nedd4 (arrowhead) in MDA-MB-435S cell lysates. The blot was blocked with p/n B501-0500 5% BLOTTO overnight at 4°C. Primary antibody was used at a 1:350 dilution in 5% BLOTTO followed by reaction with a 1:20,000 dilution of HRP goat anti-rabbit IgG in #MB-070 Blocking Buffer for Fluorescent Western Blotting. ECL was used for detection.



## Disclaimer

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