

Anti-NEDD4 (RABBIT) Antibody - 600-401-B05
Code: 600-401-B05

Size: 100 µg

Product Description: Anti-NEDD4 (RABBIT) Antibody - 600-401-B05

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

PhysicalState: Liquid (sterile filtered)

Label	Unconjugated
Host	Rabbit
Gene Name	NEDD4
Species Reactivity	human, horse, macaque
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Stabilizer	None
Preservative	0.01% (w/v) Sodium Azide
Storage Condition	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Synonyms	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
Application Note	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.
Background	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 ⁺ channels (NaVs) and epithelial Na ⁺ channels (ENaCs) in response to increased intracellular Na ⁺ 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.
Purity And Specificity	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.
Assay Dilutions	User Optimized
ELISA	1:20,000 – 1:35,000
Western Blot	1:300 to 1:500
IF Microscopy	User Optimized
Other Assays	User Optimized
Expiration	Expiration date is one (1) year from date of opening.
Immunogen	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⁺ channel in salivary duct cells by cytosolic Na⁺. *Proc. Natl. Acad. Sci. USA* 95, 7169-73. Goulet C.C. et al. (1998) Inhibition of the epithelial Na⁺ 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

UniProtKB - P46934

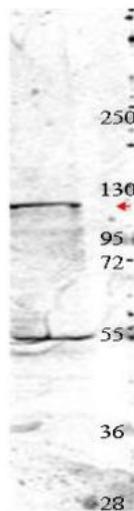
<http://www.uniprot.org/uniprot/P46934>

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

GenID - 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 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.



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