

Datasheet for 600-401-B05**NEDD4 Antibody****Overview**

Description:	Anti-NEDD4 (RABBIT) Antibody - 600-401-B05
Item No.:	600-401-B05
Size:	100 µg
Applications:	ELISA, WB, IF
Reactivity:	Human
Host Species:	Rabbit

Product Details

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-β 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.
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
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	NEDD4
Reactivity:	Human
Immunogen Type:	Conjugated Peptide
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.
Purity/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.
Relevant Links:	• UniProtKB - P46934 • NCBI - 114520609 • GeneID - 4734

Application Details

Tested Applications:	ELISA, WB
Suggested Applications:	IF (Based on references)
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.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:20,000 – 1:35,000
IF:	User Optimized
WB:	1:300 to 1:500

Formulation

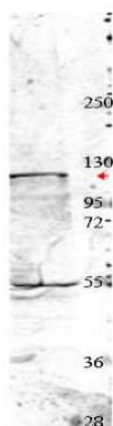
Physical State:	Liquid (sterile filtered)
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Concentration:	0.64 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

Shipping Condition:	Dry Ice
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.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot

Western blot using Rockland's affinity purified anti-Nedd4 antibody shows detection of a 115 kDa band (arrowhead) corresponding to endogenous Nedd4. Lane 1: MDA-MB-435S cell lysates (p/n W09-001-A39). The blot was blocked with 5% BLOTTO (p/n B501-0500) 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 Blocking Buffer for Fluorescent Western Blotting (p/n MB-070). ECL was used for detection.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.