Datasheet for ABIN349606

anti-NEDD4 antibody (Internal Region)

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1 Image

Overview

Quantity:	100 µg
Target:	NEDD4
Binding Specificity:	Internal Region
Reactivity:	Human, Horse, Macaque
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This NEDD4 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA

Product Details

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. Immunogen Type: Peptide
Isotype:	IgG
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.
Cross-Reactivity:	Horse (Equine), Macaque

Product Details

Characteristics:	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-beta 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.
Purification:	affinity purified
Sterility:	Sterile filtered

Target Details

Target:	NEDD4
Alternative Name:	NEDD4 (NEDD4 Products)
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

Target Details

	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: E3 ubiquitin protein ligase Nedd4 antibody, KIAA0093 antibody, NEDD 4 antibody, Neural precursor cell expressed developmentally down regulated 4 antibody
Gene ID:	4734, 114520609
UniProt:	P46934
Pathways:	Notch Signaling, Intracellular Steroid Hormone Receptor Signaling Pathway, Skeletal Muscle Fiber Development, Signaling Events mediated by VEGFR1 and VEGFR2

Application Details

Application Notes:	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.
Comment:	Gene Name: NEDD4
Restrictions:	For Research Use only

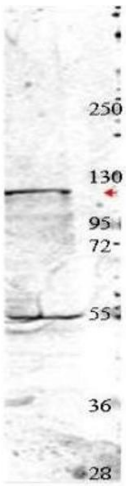
Handling

Format:	Liquid
Concentration:	0.64 mg/mL
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	Sodium azide
Precaution of Use:	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C/-20 °C
Storage Comment:	Store vial at 4 °C prior to restoration. For extended storage aliquot contents and freeze at -20 °C or below. 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 date is three (3) months from date of

Handling

	opening.
Expiry Date:	3 months

Images



Western Blotting

Image 1. Western blot using 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 #ABIN925618 Blocking Buffer for Fluorescent Western Blotting. ECL was used for detection.

