

Product datasheet for **TA319441**

NEDD4 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	ELISA: 1:20,000 – 1:35,000, WB: 1:300 to 1:500, IF: User Optimized
Reactivity:	Human, Macaque, Horse
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
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.
Formulation:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	neural precursor cell expressed, developmentally down-regulated 4, E3 ubiquitin protein ligase
Database Link:	NP_006145 Entrez Gene 4734 Human P46934
Synonyms:	NEDD4-1; RPF1



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Note: 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.

Protein Families: Druggable Genome

Protein Pathways: Endocytosis, Ubiquitin mediated proteolysis

Product images:



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 [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.