10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

RNF111 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP18547a

Product Information

Application	WB, E
Primary Accession	Q6ZNA4
Other Accession	NP_060080.6
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB38613
Calculated MW	108862
Antigen Region	209-237

Additional Information

Gene ID	54778
Other Names	E3 ubiquitin-protein ligase Arkadia, 632-, RING finger protein 111, RNF111
Target/Specificity	This RNF111 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 209-237 amino acids from the N-terminal region of human RNF111.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	RNF111 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RNF111 (HGNC:17384)
Function	E3 ubiquitin-protein ligase (PubMed: 26656854). Required for mesoderm patterning during embryonic development (By similarity). Acts as an enhancer of the transcriptional responses of the SMAD2/SMAD3 effectors, which are activated downstream of BMP (PubMed:14657019, PubMed:16601693). Acts

by mediating ubiquitination and degradation of SMAD inhibitors such as SMAD7, inducing their proteasomal degradation and thereby enhancing the transcriptional activity of TGF-beta and BMP (PubMed:14657019, PubMed:16601693). In addition to enhance transcription of SMAD2/SMAD3 effectors, also regulates their turnover by mediating their ubiquitination and subsequent degradation, coupling their activation with degradation, thereby ensuring that only effectors 'in use' are degraded (By similarity). Activates SMAD3/SMAD4-dependent transcription by triggering signal-induced degradation of SNON isoform of SKIL (PubMed:17591695). Associates with UBE2D2 as an E2 enzyme (PubMed:22411132). Specifically binds polysumoylated chains via SUMO interaction motifs (SIMs) and mediates ubiquitination of sumoylated substrates (PubMed:23751493). Catalyzes 'Lys-63'-linked ubiquitination of sumoylated XPC in response to UV irradiation, promoting nucleotide excision repair (PubMed:23751493). Mediates ubiquitination and degradation of sumoylated PML (By similarity). The regulation of the BMP-SMAD signaling is however independent of sumoylation and is not dependent of SUMO interaction motifs (SIMs) (By similarity).

Cellular Location Nucleus. Cytoplasm Nucleus, PML body {ECO:0000250|UniProtKB:Q99ML9}. Note=Upon TGF-beta treatment, translocates from nucleus to cytosol

Tissue Location Broadly expressed..

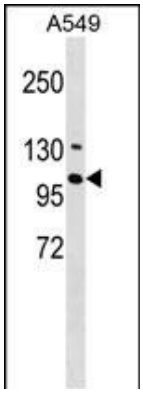
Background

The protein encoded by this gene contains a RING finger domain, a motif known to be involved in protein-protein and protein-DNA interactions. The mouse counterpart of this gene (Rnf111/arkadia) has been shown to genetically interact with the transforming growth factor (TGF) beta-like factor Nodal, and act as a modulator of the nodal signaling cascade, which is essential for the induction of mesoderm during embryonic development. [provided by RefSeq].

References

Nagano, Y., et al. J. Biochem. 147(4):545-554(2010)
Cunnington, R.H., et al. Can. J. Physiol. Pharmacol. 87(10):764-772(2009)
Markson, G., et al. Genome Res. 19(10):1905-1911(2009)
van Wijk, S.J., et al. Mol. Syst. Biol. 5, 295 (2009) :
Liu, F.Y., et al. Kidney Int. 73(5):588-594(2008)

Images



RNF111 Antibody (N-term) (Cat. #AP18547a) western blot analysis in A549 cell line lysates (35ug/lane).This demonstrates the RNF111 antibody detected the RNF111 protein (arrow).