

RNF111 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP18547a**Specification**

RNF111 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [Q6ZNA4](#)**RNF111 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 54778**Other Names**

E3 ubiquitin-protein ligase Arkadia, 632-, RING finger protein 111, RNF111

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

RNF111 Antibody (N-term) Blocking Peptide - Protein Information**Name** RNF111 ([HGNC:17384](#))**Function**

E3 ubiquitin-protein ligase (PubMed: <http://www.uniprot.org/citations/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: <http://www.uniprot.org/citations/14657019>, PubMed: <http://www.uniprot.org/citations/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: <http://www.uniprot.org/citations/14657019>, PubMed: <http://www.uniprot.org/citations/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: <http://www.uniprot.org/citations/17591695>). Associates with UBE2D2 as an E2 enzyme (PubMed: <http://www.uniprot.org/citations/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..

RNF111 Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

RNF111 Antibody (N-term) Blocking Peptide - Images**RNF111 Antibody (N-term) Blocking Peptide - Background**

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

RNF111 Antibody (N-term) Blocking Peptide - 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)