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Product datasheet for MR211379L3V

Rnf111 (BC069835) Mouse Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Product Name:	Rnf111 (BC069835) Mouse Tagged ORF Clone Lentiviral Particle
Symbol:	Rnf111
Synonyms:	ARK, Arkadia
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-Myc-DDK-P2A-Puro (PS100092)
Tag:	Myc-DDK
ACCN:	BC069835
ORF Size:	2943 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR211379).
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	BC069835, AAH69835
RefSeq Size:	4725 bp
RefSeq ORF:	2945 bp
Locus ID:	93836
Cytogenetics:	9 39.53 cM

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Gene Summary: E3 ubiquitin-protein ligase required for mesoderm patterning during embryonic development (PubMed:11298452). Acts as an enhancer of the transcriptional responses of the SMAD2/SMAD3 effectors, which are activated downstream of BMP (PubMed:14657019). 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). 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 (By similarity). Associates with UBE2D2 as an E2 enzyme (By similarity). Specifically binds polysumoylated chains via SUMO interaction motifs (SIMs) and mediates ubiquitination of sumoylated substrates (PubMed:23530056). Catalyzes 'Lys-63'-linked ubiquitination of sumoylated XPC in response to UV irradiation, promoting nucleotide excision repair (By similarity). Mediates ubiquitination and degradation of sumoylated PML (PubMed:23530056). The regulation of the BMP-SMAD signaling is however independent of sumoylation and is not dependent of SUMO interaction motifs (SIMs) (PubMed:23530056).[UniProtKB/Swiss-Prot Function]