

Product datasheet for **MC220666**

Rnf111 (BC069835) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Rnf111 (BC069835) Mouse Untagged Clone
Tag: Tag Free
Symbol: Rnf111
Synonyms: ARK, Arkadia
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >BC069835
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGTCTCAATGGACTCCTGAATTAACGAGCTCTACACCCAAAAGTGGCTATGAAGAGTGGGACTCCTG
ATGCGCCACTACACAGGAGAGTCTGAAGCGGTCCTTCTGCACCCACAGCCCTAGGGCCACCAAGAG
CTTCCCTGCAGAAGTGGAGATGATTAATAGCAAAGTGGGAATGAATTCTCTCATCTGTGTGATGATTCT
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GCAAAAGCCAGCAGGCTGGCCCTCATATGTGCAGAACTGTGTCAAGAAAAATCAGGAAATCCTAGGGCG
CAGACAACAGCTAGAGACACCGAGTGTAGGATAATGACTCTTCTTAAGTGTGTCTGTCTTCTCC
TCATCTAGTCTCCATTTGGGGCTCTGATACAGTGACTTCAGATGAGGATAAAGAAGTCTCGGTGAGAC
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TCTGATACTACTCAACTGTGGCCAGTAGCCAGCCTCCACAGTGTGAGACTGAAGCTACTCTTACAA
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TGGTCTCCTGCAATGCCAAGGCTACCTTCTGTGCCCCAGCACTCACCATGTGGAGGGACATCACAG
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ACCATCACCACCATACTCCCCACCCAGCTGTCCCAGTTTCTCCTTCCTTCAGTGACCCTGCTTGCCAGT
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GCATTGCCAGTCGATCTGAGCAACAGTGCTCTCAGGACTCATGGAAGTGGGGTTTCCATGGTGCATCTG
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GACTCAGCCATTATCAATAGATGGCTATGGCTCCAGCATGGTTGCCAGCCCCAGCCCCAGCCCCCTCCA
CAGCCTTCTCTTTCGTCATGTCGGCACTACATGCCACCTCCGATGCTTCTTGAACAAGACCACTGCACC
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CTATTTTAGAGGAAGGTGAAGATGTGAGGCGCCTTCCATGTATGCACCTTTCCACCAAGTGTGTGTTGA
TCAGTGGCTGATACCAATAAGAAGTGCCTCATATGCAGAGTGGACATCGAGGCCAGCTGCCAAGTGAA
AGTTGA
  
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCTGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA
  
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- Restriction Sites:** Sgfl-Mlul
- ACCN:** BC069835
- Insert Size:** 2946 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
- RefSeq:** [BC069835](#), [AAH69835](#)
- RefSeq Size:** 4725 bp
- RefSeq ORF:** 2945 bp
- Locus ID:** 93836

Cytogenetics: 9 39.53 cM

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]