

Product datasheet for **MC216355**

Bmp3 (NM_173404) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Bmp3 (NM_173404) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Bmp3
Synonyms:	9530029I04Rik; D630004D15R
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >MC216355 representing NM_173404
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCCGGGGCGCGGGGCTGCTGTCTATGGCTAGGTTACTTCTGCCTGAACCTGGCACAGGGACAGA
 GACCAAACCTTGACCTCCCGGGACTCCGTGAGACTGAGCCAAGCGACCGCGGACAGGTGGTAGCCGAG
 TCCGGACCTGAGGCCGCACGACAAGGTGTCGGAGCATATGCTGTGGCTCTATGACAGGTACAGCGGCAGC
 AGTAGAGTCCAGGCTACCCGGACACCGGGCTCGCAGCTCCCGGGTCTCAGCCCCGCGCGGTGGTAAACA
 CGGTCCGAGCTTCAGAGCCGACCGCAGGAACCTCTCAAACGAAGGGTTACACACCTTCAATCTGAC
 TTCTCTAACCAAGTCGGAGAACATTTTGTGAGCCACACTGTATTTCTACGTTGGAGAATTAGTGAACATC
 AGCTTGAGCTGTCCAGAACCCCAAGGATGCTCCCATCACACTCAGAGACAACACATCCAGATAGACCTCT
 CTGCATGGATCTCAAATCCAACCAAAGCCAGCTCTTGGGTCTGTCTGTAGATGTGGTCAGACCTTA
 TAGAGACAGCGTGTCTTGGCTGTCAAAGACATCACTCAGCTCTAAGAAAGGCCAAGCAAATGAAGAG
 TTTCTCATAGGGTTAACATTACCTCCAGAGCACACGAGTACCCAAGAGGATGTGTTTTCCCGGAAC
 CTTATATCTTGGTATACGCCAACGATGCTGCCATTTCTGAGCCAGAAAGCGTGGTATCCAGCTTACAGAG
 ACACCGAGATTTACAGCGGGAACCTGGGCCAGACTGGATAGCCACGTCAGAGAAGCCCTCTCGTTGAG
 AGGAGGAAGAAGCGCTCTACTGGGATCTTGTGCCCTTGAGAACAATGAGCTACCTGGGGCAGAGTATC
 AGTACAAGGAGGAGGGAGCGTGGGAGGAGAGAAAGCCTTATAAGAGCCTTCAGACTCAGCCCCCTGAGAA
 GAGTAGGAACAAAAGAAACAGAGGAAAGGGTCCCATCAGAAGGGACAGACGCTGCAATTTGATGAGCAG
 ACCCTGAAGAAGCAAGGCGAAAGCAGTGGTTCGAACCTCGGAAGTGTCCAGGAGGTACCTAAAGTGG
 ACTTTGCTGATATCGGCTGGAGCGAATGGATTATCTCTCCAAGTCATTTGATGCTTTCTACTGCTCTGG
 AGCTGCCAGTTCCCATGCCAAAGTCTTTGAAACCATCAAATCACGCCACCATCCAGAGCATAGTGCGA
 GCGGTGGGGTCTCTCCGGATTCCCGAGCCTTGTGTGTGCCGAAAAGATGTCCTCACTCAGCATCT
 TGTCTTTGATGAAAACAAGAATGTAGTCTCAAAGTCTACCCTAACATGACAGTCGACTCTGTGCTTG
 TAGATAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_173404
- Insert Size:** 1407 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: [NM_173404.5](#), [NP_775580.1](#)

RefSeq Size: 6229 bp

RefSeq ORF: 1407 bp

Locus ID: 110075

UniProt ID: [Q8BHE5](#)

Cytogenetics: 5 48.24 cM

Gene Summary: This gene encodes a secreted ligand of the TGF-beta (transforming growth factor-beta) superfamily of proteins. Ligands of this family bind various TGF-beta receptors leading to recruitment and activation of SMAD family transcription factors that regulate gene expression. The encoded preprotein is proteolytically processed to generate each subunit of the disulfide-linked homodimer. This protein suppresses osteoblast differentiation, and negatively regulates bone density, by modulating TGF-beta receptor availability to other ligands. Homozygous knockout mice for this gene exhibit increased bone density and volume, while overexpression of this gene in a transgenic mouse causes bone defects resulting in spontaneous rib fractures. This gene encodes distinct protein isoforms that may be similarly proteolytically processed. [provided by RefSeq, Jul 2016]

Transcript Variant: This variant (2) uses an alternate splice site in the 3' coding region, which results in a frameshift, compared to variant 1. The encoded isoform (2) has a distinct, shorter C-terminus compared to isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.