

Product datasheet for **MR223213**

Bmp3 (NM_173404) Mouse Tagged ORF Clone

Product data:

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



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ORF Nucleotide Sequence:

>MR223213 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCCGGGGCGCGGGGCTGCTGTCTATGGCTAGGTTACTTCTGCCTGAACCTGGCACAGGGACAGA
 GACCAAACTTGCACCTCCCGGACTCCGTGAGACTGAGCCAAGCGACCGCGGACAGGTGGTAGCCGAG
 TCCGGACCTGAGGCCGACGACAAGGTGTGCGGAGCATATGCTGTGGCTCTATGACAGGTACAGCGGCAGC
 AGTAGAGTCCAGGCTACCCGGACACCGGGCTCGCAGCTCCCGGTCTCAGCCCCGCGCGGTGGTAAACA
 CGGTCCGAGCTTCAGAGCCGACCGCAGGAACCTCTCAAACGAAGGGTTACACACCTCAATCTGAC
 TTCTCTAACCAAGTCGGAGAACATTTTGTAGCCACACTGTATTTCTACGTTGGAGAATTAGTGAACATC
 AGCTTGAGCTGTCCAGAACCCCAAGGATGCTCCCATCACACTCAGAGACAACACATCCAGATAGACCTCT
 CTGCATGGATCTCAAATCCAACCAAAGCCAGCTCTGGGTCTGTCTGTAGATGTGGTCAGACCTTA
 TAGAGACAGCGTGTCTGGCTGTCAAAGACATCACTCAGCTCTAAGAAAGCCAAAGCAAATGAAGAG
 TTTCTCATAGGGTTAACATTACCTCCAGAGCACACGAGCTACCCAAGAGGATGCTGTTTTTCCCGAAC
 CTTATATCTTGGTATACGCCAACGATGCTGCCATTTCTGAGCCAGAAAGCGTGGTATCCAGCTTACAGAG
 ACACCGAGATTTACAGCGGGAAGTGGGCCAGACTGGATAGCCACGTACAGAGAAGCCCTCTCGTTGAG
 AGGAGGAAGAAGCGCTCTACTGGGATCTTGTGCCCTTGAGAACAATGAGCTACCTGGGCAGAGTATC
 AGTACAAGGAGGAGCGTGGGAGGAGAAAGCCTTATAAGAGCCTTCAGACTCAGCCCCCTGAGAA
 GAGTAGGAACAAAAGAAACAGAGGAAAGGTCCCATCAGAAGGGACAGACGCTGCAATTTGATGAGCAG
 ACCCTGAAGAAGCAAGGCGAAAGCAGTGGTTCGAACCTCGAACTGTGCCAGGAGTACCTAAAGTGG
 ACTTTGCTGATATCGGCTGGAGCAATGGATTATCTCTCCAAGTCATTTGATGCTTTCTACTGCTGG
 AGCCTGCCAGTTCCCATGCCAAAGTCTTTGAAACCATCAAATCACGCCACCATCCAGAGCATAGTGCGA
 GCGGTGGGGTCTCTCCGGATTCCCGAGCCTTGTGTGTGCCGAAAAGATGTCCTCACTCAGCATCT
 TGTCTTTGATGAAAACAAGAATGTAGTCTCAAAGTCTACCCTAACATGACAGTCGACTCTGTGCTTG
 TAGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR223213 protein sequence
 Red=Cloning site Green=Tags(s)

MAGARGLLCLWLGYFCLNLAQQQRPNLHLPGLRETEPSDRATGGSPSPDLRPHDKVSEHMLWLYDRYSGS
 SRVQATRTPGSQPLPGPQPLRGGNTVRSFRAAAAAGTPQTKGLHTFNL TSLTKSENILSATL YFYVGELVNI
 SLSCPEPQGC SHHTQRQHIQIDL SAWILKSNQSQLLGHL SVDVVRPYRDSVSWLSKDITQLLRKAKQNEE
 FLIGFNIT SRAHEL PKRMLFFPEPYILVYANDAA ISEPE SVVSSLQRHRDFTAGTGPRLDSHVREALSVE
 RRKKRSTGILLPLQNNELPGA EYQYKEEGAW EERKPYKSLQTQPPEKSRNKKKQRK GSHQKGQTLQFDEQ
 TLKKARRKQWVEPRNCARRY LKVDFADIGWSEWII SPKSFDAFYCSGACQFPMPKSLKPSNHATIQSIVR
 AVGVVSGIPEPCVPEKMSSLILFFDENKNVVLKVYPNMTVDSCACR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_173404

ORF Size: 1407 bp

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.

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: 3112 bp

RefSeq ORF: 1407 bp

Locus ID: 110075

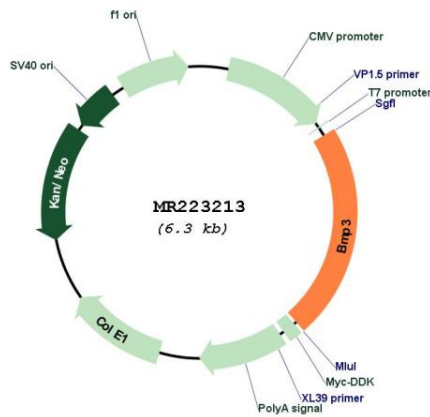
UniProt ID: [Q8BHE5](#)

Cytogenetics: 5 48.24 cM

MW: 52.8 kDa

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 preproprotein 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]

Product images:



Circular map for MR223213