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Product datasheet for RC212801

BMP3 (NM_001201) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BMP3 (NM_001201) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	BMP3
Synonyms:	BMP-3A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

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ORF Nucleotide Sequence:

>RC212801 representing NM_001201
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTGGGGCGAGCAGGCTGCTCTTTCTGTGGCTGGGCTGCTTCTGCGTGAGCCTGGCGCAGGGAGAGA
GACCGAAGCCACCTTTCCCGGAGCTCCGCAAAGCTGTGCCAGGTGACCGCACGGCAGGTGGTGGCCCGGA
CTCCGAGCTGCAGCCGCAAGACAAGGTCTCTGAACACATGCTGCGGCTCTATGACAGGTACAGCACGGTC
CAGGCGGCCCGGACACCGGGCTCCCTGGAGGGAGGCTCGCAGCCCTGGCGCCCTCGGCTCCTGCGCGAAG
GCAACACGGTTCGCAGCTTTCGGGCGGCAGCAGCAGAAACTCTTGAAAGAAAAGGACTGTATATCTTCAA
TCTGACATCGCTAACCAAGTCTGAAAACATTTTGTCTGCCACACTGTATTTCTGTATTGGAGAGCTAGGA
AACATCAGCCTGAGTTGTCCAGTGTCTGGAGGATGCTCCCATCATGCTCAGAGGAAACACATTCAGATTG
ATCTTTCTGCATGGACCCTCAAATTCAGCAGAAACCAAAGTCAACTCCTTGGCCATCTGTCAGTGGATAT
GGCCAAATCTCATCGAGATATTATGTCCTGGCTGTCTAAAGATATCACTCAATTCTTGAGGAAGGCCAAA
GAAAATGAAGAGTTCCTCATAGGATTTAACATTACGTCCAAGGGACGCCAGCTGCCAAAGAGGAGGTTAC
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AAGCTTACAGGGACACCGGAATTTTCCCACTGGAACTGTTCCCAAATGGGATAGCCACATCAGAGCTGCC
CTTTCCATTGAGCGGAGGAAGAAGCGCTCTACTGGGGTCTTGCTGCCTCTGCAGAACAACGAGCTTCCTG
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GGCCCCTGAAAAGAGTAAGAATAAAAAGAAACAGAGAAAGGGGCCTCATCGGAAGAGCCAGACGCTCCAA
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ACCTCAAGGTAGACTTTGCAGATATTGGCTGGAGTGAATGGATTATCTCCCCCAAGTCCTTTGATGCCTA
TTATTGCTCTGGAGCATGCCAGTTCCCCATGCCAAAGTCTTTGAAGCCATCAAATCATGCTACCATCCAG
AGTATAGTGAGAGCTGTGGGGGTCGTTCCTGGGATTCCTGAGCCTTGCTGTGTACCAGAAAAGATGTCCT
CACTCAGTATTTTATTCTTTGATGAAAATAAGAATGTAGTGCTTAAAGTATACCCTAACATGACAGTAGA
GTCTTGCGCTTGCAGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC212801 representing NM_001201
Red=Cloning site Green=Tags(s)

MAGASRLLFLWLGCFCVSLAQGERPKPPFPELRKAVPGDRTAGGGPDSELQPQDKVSEHMLRLYDRYSTV
QAARTPGSLEGGSQPWRPRLLREGNTVRSFRAAAAETLERKGLYIFNLTSLTKSENILSATLYFCIGELG
NISLSCPVSGGCSHHAQRKHIQIDLSAWTLKFSRNQSQLLGHLSVDMAKSHRDIMSWLSKDITQFLRKAK
ENEEFLIGFNITSKGRQLPKRRLPFPEPYILVYANDAAISEPESVVSSLQGHRNFPTGTVPKWDSHIRAA
LSIERRKKRSTGVLLPLQNNELPGAEYQYKKDEVWEERKPYKTLQAQAPEKSKNKKKQRKGPHRKSQTLQ
FDEQTLKKARRKQWIEPRNCARRYLKVDFADIGWSEWIISPKSFDAYYCSGACQFPMPKSLKPSNHATIQ
SIVRAVGVVPGIPEPCCVPEKMSSLSILFFDENKNVVLKVYPNMTVESCACR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6115_c11.zip

Restriction Sites: SgfI-MluI

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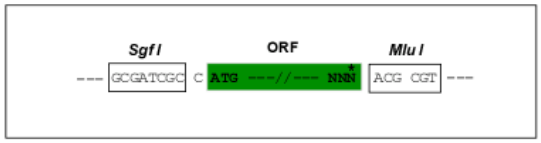
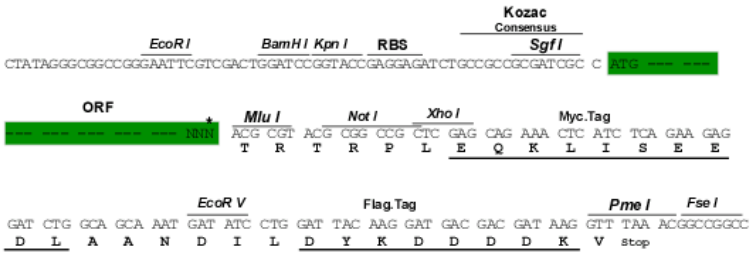
Cloning Scheme:





ACCN: NM_001201

ORF Size: 1416 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_001201.4

RefSeq Size: 1774 bp

RefSeq ORF: 1419 bp

Locus ID: 651

UniProt ID: P12645

Cytogenetics: 4q21.21

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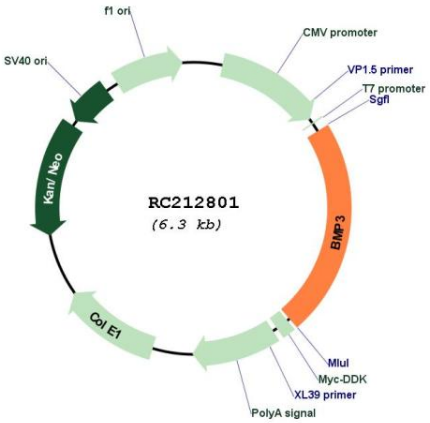
Protein Families: Druggable Genome, Secreted Protein

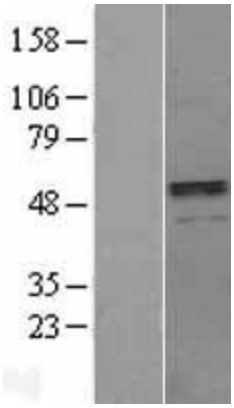
MW: 53.41 kDa

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. [provided by RefSeq, Jul 2016]

Product images:



Circular map for RC212801



Western blot validation of overexpression lysate (Cat# [LY400482]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212801 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

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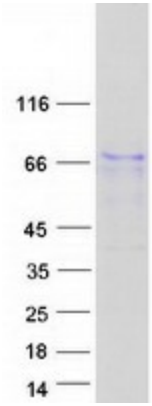

Coomassie blue staining of purified BMP3 protein (Cat# [TP312801]). The protein was produced from HEK293T cells transfected with BMP3 cDNA clone (Cat# RC212801) using MegaTran 2.0 (Cat# [TT210002]).

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