

## Product datasheet for **RC212307**

### **BMP6 (NM\_001718) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	BMP6 (NM_001718) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	BMP6
Synonyms:	VGR; VGR1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC212307 representing NM\_001718  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGCCGGGCTGGGGCGGAGGGCGCAGTGGCTGTGCTGGTGGTGGGGCTGCTGTGCAGCTGCTGCGGGC  
 CCCCGCCGCTGCGGCCGCCCTTGCCCGCTGCCCGGCCGCCGCCGGGGGACAGCTGCTGGGGACGG  
 CGGGAGCCCCGGCCGCACGGAGCAGCCGCCCGCTCGCCGACGTCCTCCTCGGGTTCCTGTACCGCGG  
 CTAAGACGCAGGAGAAGCGGGAGATGCAGAAGGAGATCTTGTGGTGGTGGGGCTCCCGCACCGGCCCC  
 GGCCCTGCACGGCCTCCAACAGCCGACGCCCCGGCGCTCCGGCAGCAGGAGGAGCAGCAGCAGCAGCA  
 GCAGCTGCCTCGCGGAGAGCCCCCTCCCGGGCAGTGAAGTCCGCGCCCCCTTTCATGCTGGATCTGTAC  
 AACGCCCTGTCCGCCACAACGACGAGGACGGGGCGTCCGAGGGGAGAGGCAGCAGTCTGGCCCCACG  
 AAGCAGCCAGCTCGTCCAGCGTCCGACGCCGCCCGGGCGCCGCGCACCCGCTCAACCGCAAGAGCCT  
 TCTGGCCCCGGATCTGGCAGCGCGCGCGTCCCACACTGACCAGCGCGCAGGACAGCGCCTTCTCAAC  
 GACGCGGACATGGTCATGAGCTTTGTGAACCTGGTGGAGTACGACAAGGATTTCTCCCTCGTCAGCGAC  
 ACCACAAAGAGTTCAAGTTCAACTTATCCAGATTCTGAGGGTGGTGGTGGTGGTGGTGGTGGTGGTGGT  
 CATCTACAAGGACTGTGTATGGGGAGTTTTAAAACAAACTTTTCTTATCAGCATTTATCAAGTCTTA  
 CAGGAGCATCAGCACAGAGACTCTGACCTGTTTTTGTGGACACCCGTGTAGTATGGGCCTCAGAAGAAG  
 GCTGGCTGGAATTTGACATCACGGCCACTAGCAATCTGTGGTGTGACTCCACAGCATAACATGGGGCT  
 TCAGCTGAGCGTGGTACAAGGGATGGAGTCCACGTCCACCCCGAGCCGAGGCCTGGTGGCAGAGAC  
 GGCCCTTACGATAAGCAGCCCTTCATGGTGGCTTTCTTCAAAGTGAAGTGGTCCACGTGCGCACCACCA  
 GGTCAAGCTCCAGCCGGCGCCGACAACAGAGTGAATGAAACAGCCTGCAGGAAGCATGAGCTGTATGTGAGT  
 TCCAAGACCTGGGATGGCAGGACTGGATCATTGCACCCAAGGGCTATGCTGCCAATTACTGTGATGGAG  
 AATGCTCCTTCCCACTCAACGCACACATGAATGCAACCAACCACGCGATTGTGCAGACCTTGGTTACCT  
 TATGAACCCCGAGTATGTCCCAAAACCGTGTGTGCGCAACTAAGCTAAATGCCATCTCGGTTCTTTAC  
 TTTGATGACAACCAATGTCATTCTGAAAAAATACAGGAATATGGTTGTAAGAGCTTGTGGATGCCAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC212307 representing NM\_001718  
 Red=Cloning site Green=Tags(s)

MPGLGRRAQWLCWWWGLLCSCCGPPPLRPPLPAAAAAAGGQLLGDGSGPRTEQPPSPQSSSGLFYRR  
 LKTQEKREMQKEILSVLGLPHRPRPLHGLQQPQPALRQEEQQQQQLPRGEPPLGRLKSAPLFMLDL  
 NALSADNDEGASEGERQQSWPHEAASSQRRQPPPGAHPLNRKSLAPGSGSGGASPLTSAQDSAFLN  
 DADMVMSFVNLVEYDKEFSRQRHHEKFKFNLSQIPEGEVVTAAEFRIYKDCVMGSFKNQTFLLISYQVL  
 QEHQHRSDLFLLDTRVVWASEEGWLEFDITATSNLWVTPQHNMGLQLSVVTRDGVHVPRAAGLVGRD  
 GPYDKQPFMVAFFKVSEVHVRTTRSASSRRRQSRNRSTQSQDVARVSSASDYNSELKACRKHLYVS  
 FQDLGWQDWIIAPKGYAANYCDGECFPLNAHMNATNHAIVQTLVHLMNPEYVVKPCCAPTCLNAISVLY  
 FDDNSNVILKKYRNMVVRACGCH

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mg2603\\_c01.zip](https://cdn.origene.com/chromatograms/mg2603_c01.zip)

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_001718

**ORF Size:** 1539 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_001718.2](#), [NP\\_001709.1](#)

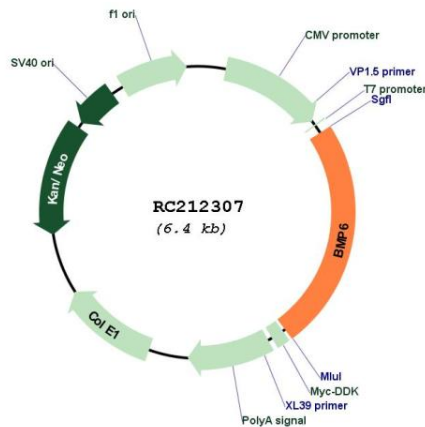
**RefSeq Size:** 2943 bp

**RefSeq ORF:** 1542 bp

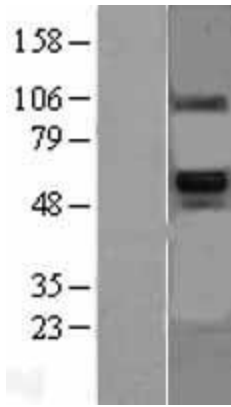
**Locus ID:** 654

<b>UniProt ID:</b>	<u>P22004</u>
<b>Cytogenetics:</b>	6p24.3
<b>Domains:</b>	TGFb_propeptide, TGF-beta
<b>Protein Families:</b>	Adult stem cells, Cancer stem cells, Druggable Genome, Embryonic stem cells, ES Cell Differentiation/IPS, Induced pluripotent stem cells, Secreted Protein, Stem cell relevant signaling - TGFb/BMP signaling pathway
<b>Protein Pathways:</b>	Hedgehog signaling pathway, TGF-beta signaling pathway
<b>MW:</b>	57 kDa
<b>Gene Summary:</b>	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 regulates a wide range of biological processes including iron homeostasis, fat and bone development, and ovulation. Differential expression of this gene may be associated with progression of breast and prostate cancer. Mutations in this gene may be associated with iron overload in human patients. [provided by RefSeq, Jul 2016]

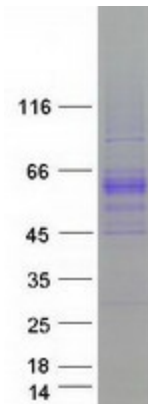
### Product images:



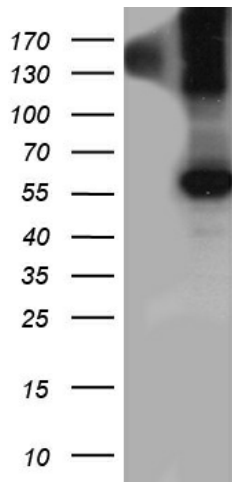
Circular map for RC212307



Western blot validation of overexpression lysate (Cat# [LY400646]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212307 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified BMP6 protein (Cat# [TP312307]). The protein was produced from HEK293T cells transfected with BMP6 cDNA clone (Cat# RC212307) using MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY BMP6 (Cat# RC212307, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-BMP6 antibody (Cat# [TA812214]). Positive lysates [LY400646] (100ug) and [LC400646] (20ug) can be purchased separately from OriGene.