

## Product datasheet for SC119057

### BMP6 (NM\_001718) Human Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** BMP6 (NM\_001718) Human Untagged Clone  
**Tag:** Tag Free  
**Symbol:** BMP6  
**Synonyms:** VGR; VGR1  
**Mammalian Cell Selection:** None  
**Vector:** pCMV6-XL6  
**E. coli Selection:** Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene ORF sequence for NM\_001718 edited  
 ATGCCGGGGCTGGGGCGGAGGGCGCAGTGGCTGTGCTGGTGGGGGCTGCTGTGCAGC  
 TGCTGCGGGGCCCCCGCCGCTGCGGCGCCCTTGCCCGCTGCCGCGGCCCGCCCGCGGG  
 GGGCAGCTGCTGGGGGACGGCGGAGCCCCGGCCGCACGAGCAGCCCGCCGCTCGCCG  
 CAGTCCTCCTCGGGCTTCTGTACCGGGGCTCAAGACGAGGAGAAGCGGGAGATGCAG  
 AAGGAGATCTTGTGCGGTGCTGGGGCTCCCGCACCGGCCCGCCCTGCACGGCCTCAA  
 CAGCCGACGCCCCGGCGCTCCGGCAGCAGGAGGAGCAGCAGCAGCAGCAGCAGCAGTGCCT  
 CGCGGAGAGCCCCCTCCCGGGGACTGAAGTCCGCGCCCTTTCATGCTGGATCTGTAC  
 AACGCCCTGTCCGCCACAACGACGAGGACGGGGCGTCCGAGGGGAGAGGCAGCAGTCC  
 TGGCCCCACGAAGCAGCCAGCTCGTCCCAGCGTCGGCAGCCGCCCGGGCGCCGCGCAC  
 CCGCTCAACCGCAAGAGCCTTCTGGCCCCGGATCTGGCAGCGGGCGCGCTCCCCTACTG  
 ACCAGCGCGCAGGACAGCGCCTTCTCAACGACCGGACATGGTCATGAGCTTTGTGAAC  
 CTGGTGGAGTACGACAAGGAGTTCTCCCCTCGTCAGCGACACCACAAAGATTCAAGTTC  
 AACTTATCCCAGATTCTGAGGGTGAGGTGGTGACGGCTGCAGAAATCCGCATCTACAAG  
 GACTGTGTATAGGGGAGTTTTAAAAACCAAACTTTTCTTATCAGCATTTATCAAGTCTTA  
 CAGGAGCATCAGCACAGAGACTTGACCTGTTTTTGTGGACACCCGTGTAGTATGGGCC  
 TCAGAAGAAGGCTGGCTGGAATTTGACATCACGGCCACTAGCAATCTGTGGGTTGTGACT  
 CCACAGCATAACATGGGGCTTCAAGTGAAGTGGTGAAGGGATGGAGTCCACGTCCAC  
 CCCCAGCCGACAGCCTGGTGGGCAGAGACGGCCCTTACGACAAGCAGCCCTTCAATGGTG  
 GCTTTCTTCAAAGTGAGTGAGGTGACAGTGCAGTGCACACCAAGGTCAGCCTCCAGCCGCGC  
 CGACAACAGAGTCGTAATCGCTCTACCCAGTCCCAGGACGTGGCGGGTCTCCAGTGCT  
 TCAGATTACAACAGCAGTGAATTGAAAACAGCCTGCAGGAAGCATGAGCTGTATGTGAGT  
 TTCCAAGACCTGGGATGGCAGGACTGGATCATTGCACCCAAGGGCTATGCTGCCAATTAC  
 TGTGATGGAGAATGCTCCTTCCCCTCAACGCACACATGAATGCAACCAACCACGCGATT  
 GTGCAGACCTTGGTTACCTTATGAACCCGAGTATGTCCCAACCGTGTGTGCGCCA  
 ACTAAGCTAAATGCCATCTCGTTCTTTACTTTGATGACAACCTCAATGTCATTCTGAAA  
 AAATACAGGAATATGGTTGTAAGAGCTTGTGGATGCCACTAA



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<b>5' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 5' read for NM_001718 unedited            TTACGCGCCCGTTGCCGCTTATGGGCGTAGGCGGTACGGTGGGAGGTCTATATAAGCAG            AGCTCATTTAGGTGACACTATAGAATACAAGCTACTTGTCTTTTTGCAGCGGCCGCGAA            TTCGGCACGAGGGGGCAGCGCACGTGTGCGGCCAGCGAGGCCAGAGTGACCGCGCCGCG            ACTCGCAGGAGCCAGGGCGCATGCTGCAGTGCAGCCGGACTCAGACGCACCTGGCCTGG            ACCGCGCCCTCTAGAGACCTGCGCGAGGCTGTGAGGCTCCCCTTCTCCCCTCCAAGCG            GTTCTCCTGGTGATCGCCCTTCGCCACCTCTTAGCCTGGGCACTGGGGGCGCCCGCG            ACGACCATGAGAGATAAGGACTGAGGGCCAGGAAGGGGAAGCGAGCCCGCGAGAGGTGG            CGGGGACTGCTCACGCCAAGGGCCACAGCGGCCGCGCTCCGCGCTCGCTCCGCGCTCCA            CGCCTCGCGGGATCCGCGGGGGCAGCCCGCGGGCGGGGATGCCGGGGCTGGGGCGGAG            GCGCAGTGGCTGTGCTGGTGGTGGGGCTGCTGTGCAGTGTGCGGGCCCCCGCGCT            GCGGCCGCCCTTGCCCGTGC CGCGGCCCGCCGCCGGGGGCGAGCTGTGGGGACAG            CGGGAGCCCCGGCCGACGGAGCAGCCCGCCGCTCGCCGAGTCTCTCGGGTTCT            GTACCGGGCGCTCAAGACGCATGAGAAGCGGGAGATGCAGAAGGAGATCTGTGCGTGT            GGGGCTNCCGCACCGGCCCGCCCTGCACGGNCCTCCACAGCCGAGCCCCGGCGCTT            CGGCAGCAAGAGGAGCATCAGCAGCAGCAGCTGCCTGGCGGAAAGCCCTCCCGGG            CGACTGAATGCCGGGCCCTCTCATGC</p>
<b>3' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 3' read for NM_001718 unedited            AAAAAAGCCTCGGGTGGCACCCCTCTTGCCGGGAAAGCACTGGGCCAGGGTACAGGGC            TGCCACCCGGTCTGTTCAGGAAACAGCTATGACCGCGCCGCAATCTAGAGTCGAGTT            TTTTTTTTTTTTTTCGACCAGCCTCTGCCTTAAAGGAAATCTTTATTAATCACGTATG            GTTCACAGATAATTCTTTTTTAAAAAACCCACCTTCTATAGAAGCACAACTGTCAAG            AGTCTGTACACACAACCTCAGCTTTGCATCACGAGTCTTGTATTCCAAGAAAATCAAAG            TGGTACAATTTGTTTGTACACTATGATACTTTCTAAATAAACTCTTTTTTTTTAAAAAG            TCTGGTCTTTCCTTCAATGTTACAGCAAAACAGATATAAAATAGACAATAAATTATAGTT            TATATTTACAAAAAAGCTGTAAGTGCAAAACAGTTGTAGATTATAAATGTATTATTTAAT            CAGTTTAGTATGAAATTGCCCTCCAGTACATGATTGTGAAAAAGACATTTAGAAAAAT            TCTAAAATTTAATCTGAGCCTCACTTTCTACAAGGAAATCATGATTTCCGTTTATAAAC            AGCATGCTCATCCCCCTAACACCATTCTATAAGCTGGGCACCCTCATTTTATTTTCTTC            GTTGGTTCTAACCTGTGGCGTGGTATGCTGTATAGTAAAAAGGCAGAGAACCACCTTAC            TAAAAAGGTAAGAGCCGGCAGTCCAGAAGTTAATGTGCTGGTCAAAGAACCCTTCTGG            GTAAGAAGAGGTGAGCATTGCCTTACGTGTTACACGGTTACACACCCTTGTAGCTCN            ACCTCAGTGTATCAGTCTACTTTTGGTACTAGCAAAAAGTACAGCAATGGAGGATTGAG</p>
<b>Restriction Sites:</b>	SgfI-MluI
<b>ACCN:</b>	NM_001718
<b>Insert Size:</b>	1542 bp
<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<b>Components:</b>	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\\_001718.5](#), [NP\\_001709.1](#)

**RefSeq Size:** 3807 bp

**RefSeq ORF:** 1542 bp

**Locus ID:** 654

**UniProt ID:** [P22004](#)

**Cytogenetics:** 6p24.3

**Domains:** TGFb\_propeptide, TGF-beta

**Protein Families:** 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

**Protein Pathways:** Hedgehog signaling pathway, TGF-beta signaling pathway

**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 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]