

Product datasheet for **RG203813**

BMP7 (NM_001719) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BMP7 (NM_001719) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	BMP7
Synonyms:	OP-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG203813 representing NM_001719 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCACGTGCGCTCACTGCGAGCTGCGGCGCCGCACAGCTTCGTGGCGCTCTGGGCACCCCTGTTCTGCTG
TGCGCTCCGCCCTGGCCGACTTCAGCCTGGACAACGAGGTGCACTCGAGCTTCATCCACCGGCGCCTCCG
CAGCCAGGAGCGGCGGGAGATGCAGCGGAGATCCTCTCCATTTGGGCTTGCCCAACGCGCCGCGCCCG
CACCTCCAGGGCAAGCACAACCTCGGCACCCATGTTTCATGCTGGACCTGTACAACGCCATGGCGGTGGAGG
AGGGCGGCGGGCCGGCGGCCAGGGCTTCTCCTACCCCTACAAGGCCGTCTTCAGTACCCAGGGCCCCC
TCTGGCCAGCCTGCAAGATAGCCATTTCTCACCAGCGCCGACATGGTCATGAGCTTCGTAACCTCGTG
GAACATGACAAGGAATTCTTCCACCCACGCTACCACCATCGAGAGTTCCGGTTTGATCTTTCCAAGATCC
CAGAAGGGGAAGCTGTACGGCAGCCGAATTCGGATCTACAAGGACTACATCCGGGAACGCTTCGACAA
TGAGACGTTCCGGATCAGCGTTTATCAGGTGCTCCAGGAGCACTTGGGCAGGGAATCGGATCTTTCCTG
CTCGACAGCCGTACCCTCTGGGCCTCGGAGGAGGGCTGGCTGGTGTGATCATCAGCCACCAGCAACC
ACTGGGTGGTCAATCCGCGGCACAACCTGGGCCTGCAGCTCTCGGTGGAGACGCTGGATGGGCAGAGCAT
CAACCCCAAGTTGGCGGCCTGATTGGGCGGCACGGGCCCCAGAACAAGCAGCCCTTCATGGTGGCTTTC
TTCAAGGCCACGGAGGTCCACTTCGCAGCATCCGGTCCACGGGGAGCAACAGCGCAGCCAGAACCCTG
CCAAGACGCCCCAAGAACCAGGAAGCCCTGCGGATGGCCAACGTGGCAGAGAACAGCAGCAGCGACCAAG
GCAGGCCTGTAAGAAGCACGAGCTGTATGTGAGCTTCCGAGACCTGGGCTGGCAGGACTGGATCATCGCG
CCTGAAGGCTACGCCGCTACTACTGTGAGGGGAGTGTGCCTTCCCTCTGAACCTCTACATGAACGCCA
CCAACCAGCCATCGTGACAGCCTGGTCCACTTCATCAACCCGAAACGGTGCCCAAGCCCTGCTGTGC
GCCACGCAGCTCAATGCCATCTCCGTCTCTACTTCGATGACAGCTCCAACGTCATCTGAAGAAATAC
AGAAACATGGTGGTCCGGCCTGTGGCTGCCAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG203813 representing NM_001719
 Red=Cloning site Green=Tags(s)

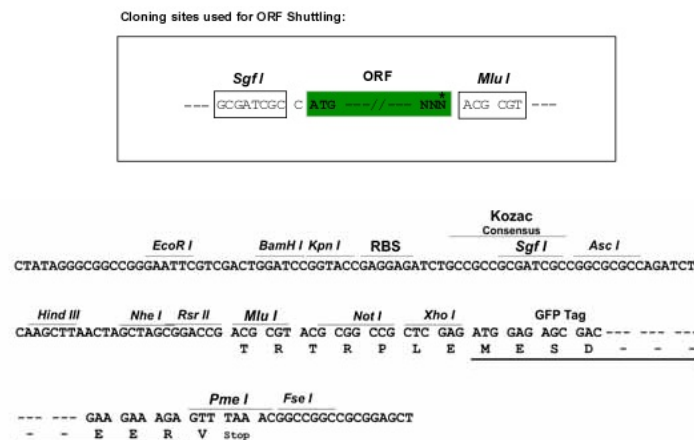
MHVRSLRAAPHSFVALWAPLFLLRSALADFLDNEVHSSF IHRRLRSQERREMQR EILSILGLPHRPRP
 HLQKGKHSAPMFMLDLYNAMAVEEGGPGGQGSYPYKAVFSTQGPPLASLQDSHFLTDADMVMSFVNLV
 EHDKEFFHPRYHHREFRDL SKIPEGEAVTAAEFRIYKDYIRERFDNETFRISVYQVLQEHLGRESDLFL
 LDSRTLWASEEGWL VFDITATSNHWVVPNRHNLGLQLSVETLDGQSINPKLAGL IGRHGPQNKQPFMVA
 FKATEVHFRSIRSTGSKQRSQNRSKTPKNQEALRMANVAENSSDQRQACKKHEL YVSFRDLGWQDWIIA
 PEGYAAYYCEGECAPFLNSYMNATNHAI VQTLVHFINPETVPKPCCAPTQLNAISVLVYFDDSSNVILKKY
 RNMVVRACGCH

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_001719

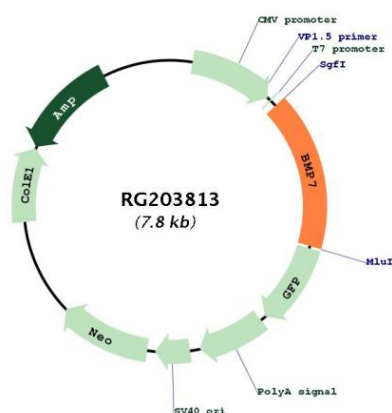
ORF Size: 1293 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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:	<u>NM_001719.3</u>
RefSeq Size:	1878 bp
RefSeq ORF:	1296 bp
Locus ID:	655
UniProt ID:	<u>P18075</u>
Cytogenetics:	20q13.31
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:	Cytokine-cytokine receptor interaction, 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, which plays a role in bone, kidney and brown adipose tissue development. Additionally, this protein induces ectopic bone formation and may promote fracture healing in human patients. [provided by RefSeq, Jul 2016]

Product images:



Circular map for RG203813