

Product datasheet for **RG206456**

BMP5 (NM_021073) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BMP5 (NM_021073) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	BMP5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG206456 representing NM_021073 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCATCGACTGTATTTTTACTTAAGGGTATTGTGGGTTTCTCTGGAGCTGCTGGGTTCTAGTGGGTT
ATGCAAAAGGAGGTTTGGGAGACAATCATGTTCACTCCAGTTTTATTTATAGAAGACTACGGAACCACGA
AAGACGGGAAATACAAAGGGAAATCTCTCTATCTTGGGTTTGCCTCACAGACCCAGACCATTTTCACCT
GGAAAACAAGCGTCTCTGCACCTCTCTTTATGCTGGATCTCTACAATGCCATGACCAATGAAGAAAATC
CTGAAGAGTCGGAGTACTCAGTAAGGGCATCCTTGGCAGAAGAGACCAGAGGGGCAAGAAAAGGATACCC
AGCCTCTCCCAATGGGTATCCTCGTCGATACAGTTATCTCGGACGACTCCTCTGACCACCCAGAGTCTCT
CCTCTAGCCAGCCTCCATGATACCAACTTTCTGAATGATGCTGACATGGTCATGAGCTTTGTCAACTTAG
TTGAAAGAGACAAGGATTTTTCTCACCAGCGAAGGCATTACAAAGAATTCGATTTGATCTTACCCAAAT
TCCTCATGGAGAGGCAGTGACAGCAGCTGAATCCGGATATAACAAGACCGGAGCAACAACCGATTTGAA
AATGAAACAATTAAGATTAGCATATATCAAAATCATCAAGGAATACACAAATAGGGATGCAGATCTGTTCT
TGTTAGACACAAGAAAGGCCAAGCTTTAGATGTGGGTTGGCTTGTCTTTGATATCACTGTGACCAGCAA
TCATTGGGTGATTAATCCCAGAATAATTTGGGCTTACAGCTCTGTGCAGAAAACAGGGGATGGACGCAGT
ATCAACGTA AAAATCTGCTGGTCTTGTGGGAAGACAGGGACCTCAGTCAAAAACAACCATTCATGGTGGCCT
TCTTCAAGGCGAGTGAGTACTTCTTCGATCCGTGAGAGCAGCCAACAAACGAAAAAATCAAACCGCAA
TAAATCCAGCTCTCATCAGGACTCCTCCAGAATGTCCAGTGTGGAGATTATAACACAAGTGAGCAAAAA
CAAGCCTGTAAGAAGCACGAACTCTATGTGAGCTTCCGGGATCTGGGATGGCAGGACTGGATTATAGCAC
CAGAAGGATACGCTGCATTTTATTGTGATGGAGAATGTTCTTTCCACTTAACGCCCATATGAATGCCAC
CAACCAGCTATAGTTAGACTCTGTTTCATCTGATGTTTCTGACCACGTACCAAAGCCTTGTGTGCT
CCAACCAATTAATGCCATCTCTGTTCTGTACTTTGATGACAGCTCCAATGTCAATTTGAAAAAATATA
GAAATATGGTAGTACGCTCATGTGGCTGCCAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG206456 representing NM_021073
Red=Cloning site Green=Tags(s)

MHLTVFLLKGI VGF L WSCWLVGYAKGGLGDNHVHSSFIYRRLRNHERREIQREILSILGLPHRPRPFSP
 GKQASSAPLFMLDLYNAMTNEENPEESEYSVRASLAEE TRGARKGY P ASPNGYPRRIQLSRTTPLTTQSP
 PLASLHDTNFLNDADMVMSFVNLVERDKDFSHQRRHYKEFRFDLTQIPHGEAVTAAEFRIYKDRSNNRFE
 NETIKISYQIIKEYTNRDADLFLLDTRKAQALDVGWLVFDITVTSNHWVINPQNNLGLQLCAETGDGRS
 INVKSAGLVGRQGPQSKQPFMVAFKASEVLLRSVRAANKRKNQNRNKSSSHQDSSRMSSVGDYNTSEKQ
 QACKKHELIVSFRDLGWQDWIIAPEGYAAFYCDGECSPFLNAHMNATNHAI VQTLVHLMFPDHPKPCA
 PTKLNAISVLVYFDDSSNVILKKYRNMVVRSCGCH

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_021073

ORF Size: 1362 bp

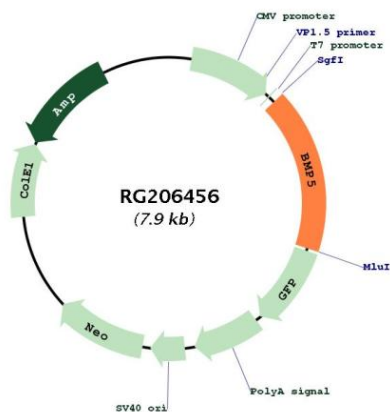
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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:	<ol style="list-style-type: none">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_021073.4
RefSeq Size:	2207 bp
RefSeq ORF:	1365 bp
Locus ID:	653
UniProt ID:	P22003
Cytogenetics:	6p12.1
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, which plays a role in bone and cartilage development. Polymorphisms in this gene may be associated with osteoarthritis in human patients. This gene is differentially regulated in multiple human cancers. This gene encodes distinct protein isoforms that may be similarly proteolytically processed. [provided by RefSeq, Jul 2016]

Product images:



Circular map for RG206456