

Product datasheet for **RG220034**

BMP4 (NM_130851) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BMP4 (NM_130851) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	BMP4
Synonyms:	BMP2B; BMP2B1; MCOPS6; OFC11; ZYME
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG220034 representing NM_130851 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGATTCCTGGTAACCGAATGCTGATGGTCGTTTTATTATGCCAAGTCCTGCTAGGAGGCGCGAGCCATG
CTAGTTTGATACCTGAGACGGGAAGAAAAAGTCGCCGAGATTCAGGGCCACGCGGGAGGACGCCGCTC
AGGGCAGAGCCATGAGCTCCTGCGGGACTTCGAGGCGACACTTCTGCAGATGTTTGGGCTGCGCCCGCC
CCGCAGCCTAGCAAGAGTGCCGTCATTCGGACTACATGCGGGATCTTTACCGGCTTCAGTCTGGGAGG
AGGAGGAAGAGCAGATCCACAGCACTGGTCTTGAGTATCCTGAGCGCCCGCCAGCCGGCCAACACCGT
GAGGAGCTTCCACCACGAAGAACATCTGGAGAACATCCCAGGGACCAGTAAAACTCTGCTTTTCGTTTC
CTCTTTAACCTCAGCAGCATCCCTGAGAACGAGGCGATCTCCTCTGCAGAGCTTCGGCTCTTCCGGGAGC
AGGTGGACCAGGGCCCTGATTGGGAAAGGGGCTTCCACCGTATAAACATTTATGAGGTTATGAAGCCCC
AGCAGAAGTGGTGCCTGGGCACCTCATCACAGCACTACTGGACACGAGACTGGTCCACCACAATGTGACA
CGGTGGGAAACTTTTGATGTGAGCCCTGCGGTCTTCGCTGGACCCGGGAGAAGCAGCCAAACTATGGGC
TAGCCATTGAGGTGACTCACCTCCATCAGACTCGGACCCACCAGGGCCAGCATGTCAGGATTAGCCGATC
GTTACCTCAAGGGAGTGGGAATTGGGCCAGCTCCGGCCCTCCTGGTCACCTTTGGCCATGATGGCCGG
GGCCATGCCTTGACCCGACGCCGAGGGCCAAGCGTAGCCCTAAGCATCACTACAGCGGGCCAGGAAGA
AGAATAAGAACTGCCGGCGCACTCGCTCTATGTGGACTTCAGCGATGTGGGCTGGAATGACTGGATTGT
GGCCCCACCAGGCTACCAGGCCCTTCTACTGCCATGGGACTGCCCTTTCCACTGGCTGACCACCTCAAC
TCAACCAACCATGCCATTGTGCAGACCCTGGTCAATTCTGTCAATTCCAGTATCCCCAAAGCCTGTTGTG
TGCCCACTGAACTGAGTGCCATCTCCATGCTGTACCTGGATGAGTATGATAAGGTGGTACTGAAAAATTA
TCAGGAGATGGTAGTAGAGGGATGTGGTGCCGC

ACCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG220034 representing NM_130851
 Red=Cloning site Green=Tags(s)

MIPGNRMLMVLLCQVLLGGASHASLIPETGKKKVAEIQGHAGGRRSGQSHELLRDFEATLLQMFGLRRR
 PQPSKSAVIPDYMRDL YRLQSGEEEEEQIHSTGLEYPERPASRANTVRSFHHEEHLENIPGTSSENSAFRF
 LFNLSSIPENEAISSAELRLFREQVDQGPDWERGFHRINIYEVMPKPAEVPVGHILTRLLDTRLVHHNVT
 RWETFDVSPAVLRWTREKQPNYGLAIEVTHLHQTRTHQGQHVRI SRSLPQSGSNWAQLRPLLVTFGHDGR
 GHALTRRRRAKRSPKHHSQRARKKNKNCRRHSLYVDFSDVGVNDWIVAPPGYQAFYCHGDCPFPLADHLN
 STNHAIVQTLVNSVNSSIPKACCVPTELSAISMLYLDEYDKVVLKNYQEMVVEGCGCR

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_130851

ORF Size: 1224 bp

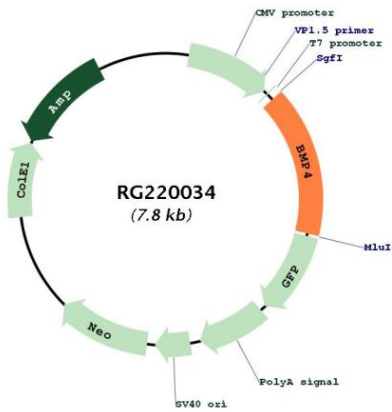
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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:	<u>NM_130851.1, NP_570912.1</u>
RefSeq Size:	1779 bp
RefSeq ORF:	1227 bp
Locus ID:	652
UniProt ID:	<u>P12644</u>
Cytogenetics:	14q22.2
Domains:	TGFb_propeptide, TGF-beta
Protein Families:	Adult stem cells, Cancer stem cells, Druggable Genome, Embryonic stem cells, Induced pluripotent stem cells, Secreted Protein, Stem cell relevant signaling - TGFb/BMP signaling pathway
Protein Pathways:	Basal cell carcinoma, Hedgehog signaling pathway, Pathways in cancer, 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 heart development and adipogenesis. Mutations in this gene are associated with orofacial cleft and microphthalmia in human patients. The encoded protein may also be involved in the pathology of multiple cardiovascular diseases and human cancers. [provided by RefSeq, Jul 2016]

Product images:



Circular map for RG220034