

## Product datasheet for **RR206284**

### **Bmp10 (NM\_001031824) Rat Tagged ORF Clone**

#### Product data:

Product Type: Expression Plasmids  
Product Name: Bmp10 (NM\_001031824) Rat Tagged ORF Clone  
Tag: Myc-DDK  
Symbol: Bmp10  
Vector: pCMV6-Entry (PS100001)  
E. coli Selection: Kanamycin (25 ug/mL)  
Cell Selection: Neomycin  
ORF Nucleotide Sequence: >RR206284 representing NM\_001031824  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**GCGATCGCC**

ATGGGTTCTCTGGTTCTGCCGCTGAGCGCCGCTTCTGCCTGGTGGCTCGTCTGGCTTCTGGCAGCCCCA  
TCATGGGCCTTGAGCAGTCGCCCTGGAAGAAGACATGCCCTTCTTTGATGATATCTTCACAGAACAAGA  
TGGTATTGACTTCAACACTGCTGCAGAGCATGAAGGACGAGTTTCTCAAGACGTTGAATCTGTCAGAC  
ATTCCCCACAGGACACAGGCAGAGTGGATCCGCCGAGTACATGCTGGAGCTCTACAACAAATTCGCCA  
CGGACCGGACCTCCATGCCATCTGCTAACATCATCCGGAGCTTCAAGAATGAAGATCTGTTTTCTCAACC  
AGTCAGTTTAAATGGGATCCGGAAGTATCCTCTCCTTCAACGTGCCATCCCTCACCAGGAGGTC  
GTCATGGCTGAACTGAGGTTGTACACGCTGGTGCAGAGAGATCGTTTGTATGATGATGGTGTGGACCGTA  
AAATAATCATCTTTGAGGTTCTAGAGAGTGCCGATGGTAGCGAGGATGAGAGGAGCATGCTGGTCTTGGT  
ATCAACGGAGATCTACGGAACCAACAGTGAGTGGGAGACATTTGACATCACGGATGCCACCAGACGTTGG  
CAAAAGTCAGGCCATCAACCCACCAGCTGGAGATCCACATCGAAAGCAGACAAAACCAAGCTGAGGACA  
CCGGAAGGGGACAACCTGAAAATAGATATGAGTGTCTCAGAATAAGCAGACCCCTTTGCTTGTGTGTTTTTC  
TGATGACCAAAGCGGTGACAAGGAGCAGAAAGAAGAGCTGAATGAACTGATCTCCCACGAGCAGGATCTG  
GACCTGGGCACCGATGGTTTCTTTGGTGGGCTGATGAAGAGGCTCTCCTGCAGATGAGGTCAAACATGA  
TCGATGACTCTACCGCTCGGATCAGGAGGAACGCAAGGGGAACTACTGCAAGAAGACTCCACTGTACAT  
CGACTTCAAGGAGATCGGCTGGGACTCCTGGATCATCGCGCTCCTGGTTACGAGGCCTATGAGTGCCGC  
GGTGTGTGCAACTACCTCTGGCGGAGCACCTCACACCTACGAAACACGCAATTATCCAGGCCTTGGTCC  
ACCTCAAGAAATCCCAGAAAGCCTCAAAGCCTGCTGCGTGCCACGAAGCTGGATCCCATCTCCATCCT  
CTATTTAGATAAAGGTGTTGTACCTATAAGTTTAAATACGAAGGAATGGCCGTGCTGAATGTGGCTGT  
AGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RR206284 representing NM\_001031824  
 Red=Cloning site Green=Tags(s)

MGSLVLP LSAVFCLVARLASGSPIMGLEQSPLEEDMPFFDDIFTEQDGDIFNTLLQSMKDEFKTLNLS  
 IPPQDTGRVDPPEYMLELYNKFATDRTSMPSANIIRSFKNEDLFSQPVSFNGIRKYPLLFNVSIPHHEEV  
 VMAELRLYTLVQRDRMLYDGVDRKIIIFEVLESADGSEDESRMLVLVSTEIYGTNSEWETFIDITDARRW  
 QKSGPSTHQLEIHIESRQQAEDTGRGQLEIDMSAQNKHDP LLLVVF SDDQSGDKEQKEELNELISHEQDL  
 DLGTDGFFGGPDEEALLQMRSNMIDDSTARIRRNAKGNKYCKKTPLYIDFKEIGWDSWIIAPPGYEAYECR  
 GVCNYPLAEHLTPTKHAI IQALVHLKNSQKASKACCVPTKLDPISILYLDKGVVYTKFKYEGMAVSECGR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

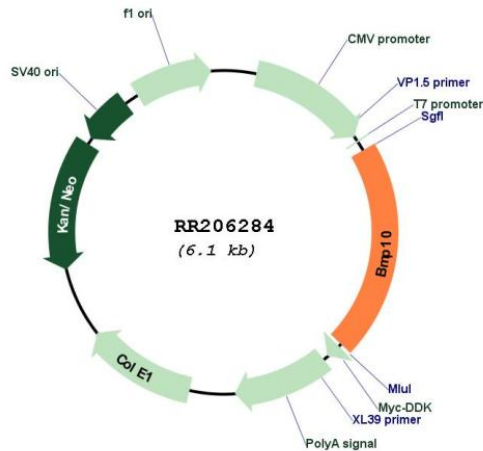
**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



<b>ACCN:</b>	NM_001031824
<b>ORF Size:</b>	1263 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001031824.1</a> , <a href="#">NP_001026994.1</a>
<b>RefSeq Size:</b>	1266 bp
<b>RefSeq ORF:</b>	1266 bp
<b>Locus ID:</b>	500245
<b>UniProt ID:</b>	<a href="#">Q4AEG6</a>
<b>Cytogenetics:</b>	4q34
<b>MW:</b>	47.8 kDa
<b>Gene Summary:</b>	Required for maintaining the proliferative activity of embryonic cardiomyocytes by preventing premature activation of the negative cell cycle regulator CDKN1C/p57KIP and maintaining the required expression levels of cardiogenic factors such as MEF2C and NKX2-5. Acts as a ligand for ACVRL1/ALK1, BMPR1A/ALK3 and BMPR1B/ALK6, leading to activation of SMAD1, SMAD5 and SMAD8 transcription factors. Inhibits endothelial cell migration and growth. May reduce cell migration and cell matrix adhesion in breast cancer cell lines.[UniProtKB/Swiss-Prot Function]