

## Product datasheet for MR217574

### Bmp8b (NM\_007559) Mouse Tagged ORF Clone

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | Bmp8b (NM_007559) Mouse Tagged ORF Clone                          |
| Tag:                      | Myc-DDK   |
| Symbol:                   | Bmp8b   |
| Synonyms:                 | O; Op3  |
| Mammalian Cell Selection: | Neomycin  |
| Vector:                   | pCMV6-Entry (PS100001)  |
| E. coli Selection:        | Kanamycin (25 ug/mL)  |
| ORF Nucleotide Sequence:  | >MR217574 ORF sequence<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTGCGCGTCCGGGACTCCTATGGCTACTGGCCTGGCTCTGTGCGTGTGGCGGCGGTACCTCT  
CGCATCCCCGCACGTCTTTCCCAGCGTCGACTAGGAGTACGCGAGCCCCGCGACATGCAGCGGAGAT  
TCGGGAGGTGCTGGGGCTGCCGGGGCGGCCCGATCCCGAGCACCAGTCCGGGGCTGCCAGCAGCCAGCG  
TCTGCGCCCTCTTTATGTTGGACCTGTACCGTGCCATGACGGATGACAGTGGCGGTGGGACCCCGCAGC  
CTCACTTGGACCGTGTGACCTGATTATGAGCTTTGTCAACATAGTGAACGCGACCGTACCCTGGGCTA  
CCAGGAGCCACACTGGAAGGAATTCACCTTTGACCTAACCAGATCCCTGCTGGGGAGGCTGTACAGCT  
GCTGAGTTCGGATCTACAAAGAACCAGTACCCACCCGCTCAACACAACCCTCCACATCAGCATGTTTCG  
AAGTGGTCCAAGAGCACTCCAACAGGGAGTCTGACTTGTCTTTTTGGATCTTCAGACGCTCCGATCTGG  
GGACGAGGGCTGGCTGGTGTGGACATCACAGCAGCCAGTACCAGTGGCTGTGAACCATCACAAAGGAC  
CTAGGACTCCGCCTCTATGTGAAACCGAGGATGGGCACAGCATAGATCCTGGCCTAGCTGGTCTGCTTG  
GACGACAAGCACCACGCTCCAGACAGCCTTTTATGTTGGTTTCTTCAGGGCCAACCAGAGTCTGTGCG  
GGCCCCCGAACAGCAAGACCACTGAAGAAGAAGCAGCTAAATCAAATCAACCAGCTGCCCACTCCAAC  
AAACACCTAGGAATCCTTGATGATGGCCACGGTCTCACGGCAGAGAAGTTTGCCGACGATGAGCTCT  
ATGTCAGCTTCCGTGACCTTGGCTGGCTGGACTCTGTCAATGCCCCCAGGGCTACTCCGCCTATTACTG  
TGCTGGGAGTGATCTACCACTGAACTCCTGTATGAACTCCACCAACCAGCCACTATGCAGGCCCTG  
GTACATCTGATGAAGCCAGATATCATCCCCAAGGTGTGCTGTGTGCTACTGAGCTGAGTGCCATTTCTC  
TGCTCTACTATGATAGAAACAATAATGTCATCCTGCGCAGGGAGCGCAACATGGTAGTCCAGGCCTGTGG  
CTGCCAC

**ACGGT**ACGGCGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



**Protein Sequence:** >MR217574 protein sequence  
Red=Cloning site Green=Tags(s)

MAARPGLLWLLGLALCVLGGGHL SHPPHVPQRRLGVREPRDMQREIREVLGLPGRPRSRAPVGAQAQPA  
 SAPLFLMDLYRAMTDDSGGGTPQPHLDRADLIMSFVNIIVERDRTLGYQEPHWKEFHFDLTQIPAGEAVTA  
 AEFRIYKEPSTHPLNTTLHISMFEVVQEHNSRESDLFFLDLQTLRSGDEGWLVLDITAASDRWLLNHHKD  
 LGLRLYVETEDGHSIDPGLAGLLGRQAPRSRQPFMVGGFFRANQSPVVRPRTARPLKKKQLNQNQLPHSN  
 KHLGILDGDGHGSHGREVCRRHEL YVSFRDLGWLDSVIAPQGYSAYYCAGECIYPLNSCMNSTNHATMQAL  
 VHLMKPDIIIPKVCVPTELSAISLLYDRNNNVILRRERNMVVQACGCH

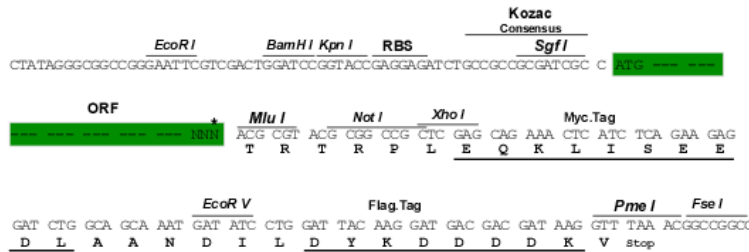
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_007559

**ORF Size:** 1200 bp

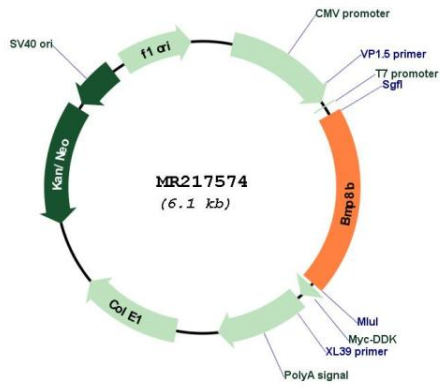
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of 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](mailto: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.

|                               |   |
|-------------------------------|---|
| <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_007559.5</a>   |
| <b>RefSeq Size:</b>           | 2940 bp   |
| <b>RefSeq ORF:</b>            | 1200 bp   |
| <b>Locus ID:</b>              | 12164   |
| <b>UniProt ID:</b>            | <a href="#">P55105</a>  |
| <b>Cytogenetics:</b>          | 4 57.38 cM  |
| <b>MW:</b>                    | 44.9 kDa  |
| <b>Gene Summary:</b>          | <p>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. The encoded protein may play a role in the generation of primordial germ cells, and has been shown to stimulate thermogenesis in brown adipose tissue. Male mice lacking a functional copy of this gene exhibit variable degrees of germ-cell deficiency. Homozygous knockout mice of both sexes exhibit impaired thermogenesis and reduced metabolic rate, resulting in weight gain. This gene may have arose from a gene duplication event and its gene duplicate is also present on chromosome 4. [provided by RefSeq, Jul 2016]</p> |

Product images:



Circular map for MR217574