

## Product datasheet for **SC108987**

### **BMPR2 (NM\_001204) Human Untagged Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** BMPR2 (NM\_001204) Human Untagged Clone  
**Tag:** Tag Free  
**Symbol:** BMPR2  
**Synonyms:** BMPR-II; BMPR3; BMR2; BRK-3; POVD1; PPH1; T-ALK  
**Mammalian Cell Selection:** None  
**Vector:** [pCMV6-XL5](#)  
**E. coli Selection:** Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene ORF sequence for NM\_001204 edited  
 ATGACTTCCTCGCTGCAGCGCCCTGGCGGGTGCCTGGCTACCATGGACCATCCTGCTG  
 GTCAGCGCTGCGGCTGCTTCGCAGAATCAAGAACGGCTATGTGCGTTTAAAGATCCGAT  
 CAGCAAGACCTTGGGATAGGTGAGAGTAGAATCTCTCATGAAAATGGGACAATATTATGC  
 TCGAAAAGGTAGCACCTGCTATGGCCTTTGGGAGAAATCAAAGGGGACATAAATCTTGTA  
 AAACAAGGATGTTGGTCTCACATTGGAGATCCCCAAGAGTGCACTATGAAGAATGTGTA  
 GTAACCTACCCTCCCTCAATTCAGAATGGAACATACCGTTTCTGCTGTTGTAGCACA  
 GATTTATGTAATGTCACTTTACTGAGAATTTCCACCTCTGACACAACACCACTCAGT  
 CCACCTCATTCTTAACCGAGATGAGACAATAATCATTGCTTTGGCATCAGTCTCTGTA  
 TTAGCTGTTTTGATAGTTGCCTTATGCTTTGGATACAGAATGTTGACAGGAGACCGTAAA  
 CAAGGTCTTACAGTATGAACATGATGGAGGCAGCAGCATCCGAACCTCTCTTGATCTA  
 GATAATCTGAAACTGTTGGAGCTGATTGGCCGAGGTTCGATATGGAGCAGTATATAAAGGC  
 TCCTTGGATGAGCGTCCAGTTGCTGTAAGAGTGTTCCTTTGCAAACCGTCAGAATTTT  
 ATCAACGAAAAGAACATTTACAGAGTGCCTTTGATGGAACATGACAACATTGCCCGCTTT  
 ATAGTTGGAGATGAGAGAGTCACTGCAGATGGACGCATGGAATATTTGCTTGTGATGGAG  
 TACTATCCCAATGGATCTTTATGCAAGTATTTAAGTCTCCACACAAGTGACTGGGTAAGC  
 TCTTGGCGTCTTGCTCATTCTGTTACTAGAGGACTGGCTTATCTTACACAGAATTACCA  
 CGAGGAGATCATTATAAACCTGCAATTTCCATCGAGATTTAAACAGCAGAAATGTCCTA  
 GTGAAAAATGATGGAACCTGTGTTATTAGTGACTTTGGACTGTCATGAGGCTGACTGGA  
 AATAGACTGGTGCGCCAGGGGAGGAAGATAATGCAGCCATAAGCGAGGTTGGCACTATC  
 AGATATATGGCACCAGAAGTGCTAGAAGGAGCTGTGAACCTGAGGGACTGTGAATCAGCT  
 TTGAAACAAGTAGACATGTATGCTCTTGGACTAATCTATTGGGAGATATTTATGAGATGT  
 ACAGACCTCTTCCAGGGGAATCCGTACCAGAGTACCAGATGGCTTTTCAGACAGAGGTT  
 GGAAACCATCCCCTTTGAGGATATGCAGGTTCTCGTGTCTAGGGAAAAACAGAGACCC  
 AAGTTCCAGAAAGCCTGGAAAGAAAATAGCCTGGCAGTGAGGTCCTCAAGGAGACAATC  
 GAAGACTGTTGGGACCAGGATGCAGAGGCTCGGCTTACTGCACAGTGTGCTGAGGAAAGG  
 ATGGCTGAACTTATGATGATTTGGGAAAGAAAACAATCTGTGAGCCCAACAGTCAATCCA



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ATGTCTACTGCTATGCAGAATGAACGCAACCTGTACATAAATAGGCGTGTGCCAAAAATT  
 GGTCTTATCCAGATTATTCTTCTCTCATACATTGAAGACTCTATCCATCATACTGAC  
 AGCATCGTGAAGAATATTTCTCTGAGCATTCTATGTCCAGCACACCTTTGACTATAGGG  
 GAAAAAACCGAAATTCATTAATATGAACGACAGCAAGCACAAAGCTCGAATCCCCAGC  
 CCTGAAACAAGTGCACCAGCCTCTCCACCAACACAACAACCACAACACCACAGGACTC  
 ACGCCAAGTACTGGCATGACTACTATATCTGAGATGCCATACCCAGATGAAAAAATCTG  
 CATACCACAATGTTGCACAGTCAATTGGGCCAACCCCTGTCTGCTTACAGCTGACAGAA  
 GAAGACTTGAAAACCAACAAGCTAGACCCAAAAGAAGTTGATAAAGAACCTCAAGGAAAGC  
 TCTGATGAGAATCTCATGGAGCACTCTCTTAAACAGTTTCAAGTGGCCAGACCCACTGAGC  
 AGTACTAGTTCTAGCTTGTCTTACCCTACTATAAACTTGCAGTAGAAGCAACTGGACAG  
 CAGGACTTCACACAGACTGCAAATGGCCAAGCATGTTTGATTCTGATGTTCTGCCTACT  
 CAGATCTATCTCTCCCCAAGCAGCAGAACCTTCCCAAGAGACCTACTAGTTTGCCTTTG  
 AACACAAAAATCAACAAAAGAGCCCCGGCTAAAATTTGGCAGCAAGCACAAATCAAAC  
 TTGAAACAAGTCGAAACTGGAGTTGCCAAGATGAATACAATCAATGCAGCAGAACCTCAT  
 GTGGTGACAGTCACCATGAATGGTGTGGCAGGTAGAAACCACAGTGTAACTCCCATGCT  
 GCCACAACCAATATGCCAATGGGACAGTACTATCTGGCCAAACAACCAATAGTGACA  
 CATAGGGCCCAAGAAATGTTGCAGAATCAGTTTATTGGTGAGGACACCCGGCTGAATATT  
 AATTCAGTCTGATGAGCATGAGCCTTACTGAGACGAGAGCAACAAGCTGGCCATGAT  
 GAAGGTGTTCTGGATCGTCTTGTGGACAGGAGGGAACGGCCACTAGAAGGTGGCCGAACT  
 AATTCATAACAACAACAGCAATCCATGTTTCAAGCAAGATGTTCTTGCACAGGGTGT  
 CCAAGCACAGCAGCAGATCCTGGGCCATCAAAGCCAGAAGAGCACAGAGGCCTAATTCT  
 CTGGATCTTTCAGCCACAATGTCCTGGATGGCAGCAGTATACAGATAGGTGAGTCAACA  
 CAAGATGGCAATCAGGATCAGGTGAAAAGATCAAGAACTGTGAAAACCTCCCTATTCT  
 CTTAAGCGGTGGCGCCCTCCACCTGGGTACTCTCCACTGAATCGCTGGACTGTGAAGTC  
 AACAAATATGGCAGTAACAGGGCAGTTCAATCCAATCCAGCACTGCTGTTTACCTTGCA  
 GAAGGAGGCACTGCTACAACCATGGTGTCTAAAGATATAGGAATGAACTGTCTGTGA

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_001204 unedited  
 CCAATTCCTCGAGGGTGAAGGAAGTCCCGAAGCGAACTTAAGGAATCCTGCCTCCCCG  
 GAGCCCGGGCGATGCGACTAGGGCTGCCGGGCGCCGCCGCCGCTCCGGCTTCGTCC  
 TTCCCGGAGTCGGAACTAGTTCTGACCCTCGCCCCCGACCCGGATCGATANCCTTG  
 CTCTCCGACCCTGGATATGTTTTCTCCAGACCTGGATATTTTTTTGATATCGTGAAAC  
 TACGAGGGAAATAATTTGGGGGATTTCTTCTGGCTCCCTGCTTTCCCCACAGACATGCC  
 TTCCGTTTGGAGGGCCGCGCACCCCGTCCGAGGCGAAGGAACCCCCAGCCGCGAGGG  
 AGAGAAATGAAGGAATTTCTGCAGCGCATGAAAGCTCTGCAGCTAGGTCTCTCATCA  
 GCCATTTGCTCTTCAAAGTATTGTGATACGGGCAGGATCAGTCCACGGGAGAGAAGA  
 CGAGCCTCCCGGCTGTTTCTCCGCGGTCTACTCCCATATTTCTTTTCTTGGCCTCCT  
 GATTCTTGGCTGGCCAGGGATGACTTCTCGCTGCAGCGCCCTGGCGGGTGCCTGGC  
 TACCATGGACCATCCTGCTGGTCAAGCGCTGCGGCTGCTTCGCAGAATCAAGAACGGCTAT  
 GTGCGTTTAAAGATCCGTATCAGCAAGACCCCTGGATAGGTGAGAGTAGAATCTCTCATN  
 GAAATGGGACAATATTATGCTCGAAAGGTAGCACCTGCTATGGGCCTTGGGAGAAATCAA  
 AAGGGACATAAATCTTGTAAACAGGGATGTTGGTCTCACATTTGGAGATCCCAAGAGTGT  
 CCCTTTGAAAATGTGTAGTAACTACCCT

<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_001204 unedited NTCCCCCCCCCGGTCCNCCGCCGCCCCCTCCCCNCCNNTCCTCCGCCTCTGCTCCGC GGCCCGGCATCTAGCATCGAGTTTTTTTTTTTTTTTTTTAAACATCTTCTGCATGTTAA ATGATGCAAAAAAATTTCACTCCATAGGCTTGAAAACATTTACAGACAGTTTCATTCT ATATCTTTAGACACCATGGTTGTAGCAGTGCCTCCTTCTGCAAGGTAACAGCAGCGTG GATTTGGAATGAACTGCCCTGTTACTGCCATTATTGTTGACTTCACAGTCCAGCGATTCA GTGGAGATGACCCAGGTGGAGGGGCGCCACCGCTTAAGAGAATAGGGAGTTTTACACGT TTCTTGATCTTTTACCTGATCCTGATTTGCCATCTTGTGTTGACTCACCTATCTGTATA CTGCTGCCATCCAGGACATTTGTGGCTGAAAGATCCAGAGAATTAGGCCTCTGTGCTCTT CTGGGCTTTGATGGCCAGGATCTGCTGCTGTGCTTGGAACACCTGTGCAAGAACATCT TGCCCTGAACATGGATTGCTGTTGTTGTTATTGGAATTAGTTCGGCCACCTTCTAGTTGG CCGCTCCCTCCTGCCACAAGACGATCCAGAACACCTTCATCATGGCCAGNTTGNTGCTC TCGTCTCAGTAAAGGCTCATGCTCATCAGGACTGTGATTCATACTACCCCGTGTGCTCT TACCAATAAACTGATTCTCGAACATTTCTTGGCCCTTATGTGCTACTATGTTCCGGTGCTT GGCCAGACTACCGGCCATTGCACATTGGGTTTCGGGCCATGGCACTTACCACTGTGG CTCTACCTGCCACCATCCTGGGGACTGCCACACAAGAGGCTTGTGCATTGATTGGT TTTATTTGGGCACCTCAGTTCACCTTGTTAAGGTT
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_001204
<b>Insert Size:</b>	3670 bp
<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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></p>
<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_001204.5</a> , <a href="#">NP_001195.2</a>
<b>RefSeq Size:</b>	11449 bp

RefSeq ORF:	3117 bp
Locus ID:	659
UniProt ID:	<a href="#">Q13873</a>
Cytogenetics:	2q33.1-q33.2
Domains:	Activin_recp, pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase, Transmembrane
Protein Pathways:	Cytokine-cytokine receptor interaction, TGF-beta signaling pathway
Gene Summary:	<p>This gene encodes a member of the bone morphogenetic protein (BMP) receptor family of transmembrane serine/threonine kinases. The ligands of this receptor are members of the TGF-beta superfamily. BMPs are involved in endochondral bone formation and embryogenesis. These proteins transduce their signals through the formation of heteromeric complexes of two different types of serine (threonine) kinase receptors: type I receptors of about 50-55 kD and type II receptors of about 70-80 kD. Mutations in this gene have been associated with primary pulmonary hypertension, both familial and fenfluramine-associated, and with pulmonary venoocclusive disease. [provided by RefSeq, May 2020]</p> <p>Transcript Variant: This variant (1) encodes the full length isoform. Isoform 1 is 508 aa longer than isoform 2 and includes a long cytoplasmic tail unique to this bone morphogenetic protein type II receptor.</p>