

## Product datasheet for **SC127222**

### **BMPR1A (NM\_004329) Human Untagged Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** BMPR1A (NM\_004329) Human Untagged Clone  
**Tag:** Tag Free  
**Symbol:** BMPR1A  
**Synonyms:** 10q23del; ACVRLK3; ALK3; CD292; SKR5  
**Mammalian Cell Selection:** None  
**Vector:** [pCMV6-XL5](#)  
**E. coli Selection:** Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene ORF sequence for NM\_004329 edited  
AATGGGCGGTAGGCGGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTGTGAAACCG  
TCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGGTCCGTC  
CGCGCGCGGCGAAGATCGCACGGCCGATCGAGGGGCGACCGGGTCGGGGCCGCTGCACG  
CCAAGGGCGAAGGCCGATTTCGGGCCCACTTCGCCCGGCGGCTCGCCGCGCCACCCGCG  
TCCGCGCGAGGGCTGGAGGATGCGTTCCTGGGGTCCGGACTTATGAAAATATGCATCA  
GTTTAATACTGTCTTGAATTCATGAGATGGAAGCATAGGTCAAAGCTGTTTGGAGAAAA  
TCAGAAGTACAGTTTTATCTAGCCACATCTTGGAGGAGTCGTAAGAAAGCAGTGGGAGTT  
GAAGTCATTGTCAAGTGCCTTGCATCTTTACAAGAAAATCTCACTGAATGATAGTCATT  
TAAATTTGGTGAAGTAGCAAGACCAATTATTAAGGTGACAGTACACAGGAAACATTACAA  
TTGAACAATGCCTCAGCTATACATTTACATCAGATTATTGGGAGCCTATTTGTTTCATCAT  
TTCTCGTGTTCAGGACAGAATCTGGATAGTATGCTTCATGGCACTGGGATGAAATCAGA  
CTCCGACCAGAAAAAGTCAGAAAATGGAGTAACCTTAGCACAGAGGATACCTTGCCCTTT  
TTTAAAGTGCTATTGCTCAGGGCACTGTCCAGATGATGCTATTAATAACACATGCATAAC  
TAATGGACATTGCTTTGCCATCATAGAAGAAGATGACCAGGGAGAAACCACATTAGCTTC  
AGGGTGTATGAAATATGAAGGATCTGATTTTCAAGTCAAAGATTCTCAAAGGCCAGCT  
ACGCCGGAACAATAGAATGTTGTCGGACCAATTTATGTAACCAGTATTTGCAACCCACACT  
GCCCTTGTGTGTCATAGTCCGTTTTTTGATGGCAGCATTGATGGCTGGTTTTGCTCAT  
TTCTATGGCTGTCTGCATAATTGCTATGATCATCTTCTCCAGCTGCTTTTGTACAAACA  
TTATTGCAAGAGCATCTCAAGCAGACGTGTTACAATCGTGATTTGGAACAGGATGAAGC  
ATTTATCCAGTTGGAGAATCACTAAAAGACCTTATTGACCAGTCACAAAGTTCTGGTAG  
TGGGTCTGGACTACCTTTATTGGTTCAGCGAACTATTGCCAAACAGATTCAGATGGTCCG  
GCAAGTTGGTAAAGGCCGATATGGAGAAGTATGGATGGGCAAAATGGCGTGGCGAAAAAGT  
GGCGGTGAAAGTATTCTTTACCACTGAAGAAGCCAGCTGGTTTTGAGAAACAGAAATCTA  
CCAAACTGTGCTAATGCGCCATGAAAACATACTTGGTTTTATAGCGGCAGACATTAAGG  
TACAGGTTCTGGACTCAGCTCTATTTGATTACTGATTACCATGAAAATGGATCTCTCTA  
TGACTTCTGAAATGTGCTACACTGGACACCAGAGCCCTGCTTAAATTGGCTTATTTCAGC



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TGCCTGTGGTCTGTGCCACCTGCACACAGAAATTTATGGCACCCAAGGAAAGCCCGCAAT  
 TGCTCATCGAGACCTAAAGAGCAAAAACATCCTCATCAAGAAAAATGGGAGTTGCTGCAT  
 TGCTGACCTGGGCCTTGCTGTTAAATTCACAGTGACACAAATGAAGTTGATGTGCCCTT  
 GAATACCAGGGTGGGCACCAAACGCTACATGGCTCCCGAAGTGTGGACGAAAGCCTGAA  
 CAAAAACCACTTCCAGCCCTACATCATGGCTGACATCTACAGTTCGGCCTAATCATTTG  
 GGAGATGGCTCGTCGTTGTATCACAGGAGGGATCGTGAAGAATACCAATTGCCATATTA  
 CAACATGGTACCGAGTGATCCGTACACGAAGATATGCGTGAGGTTGTGTGTGTCAAACG  
 TTTGCGGCCAATTGTGTCTAATCGGTGGAACAGTGATGAATGTCTACGAGCAGTTTTGAA  
 GCTAATGTCAGAATGCTGGGCCACAATCCAGCCTCCAGACTCACAGCATTGAGAATTAA  
 GAAGACGCTTGCCAAGATGGTTGAATCCCAAGATGTA AAAATCTGATGGTTAAACCATCG  
 GAGGAGAAACTCTAGACTGCAAGAACTGTTTTTACCCATGGCATGGGTGGAATTAGAGTG  
 GAATAAGGATGTTAACTTGTTCTCAGACTCTTCTTCACTACGTGTTACAGGCTGCTA  
 ATATTAACCTTTTCAGTACTCTTATTAGGATACAAGCTGGGAACCTCTAAACACTTCATT  
 CTTTATATATGGACAGCTTTATTTTAAATGTGGTTTTTGTATGCCTTTTTTAAAGTGGGT  
 TTTATGAACTGCATCAAGACTTCAATCCTGATTAGTGTCTCCAGTCAAGCTCTGGTACT  
 GAATTGCCTGTTCAAAAACGGTCTTTCTGTGAAAGCCTTAAGAAGATAAATGAGCGCA  
 GCAGAGATGGAGAAATAGACTTTGCCTTTTACCTGAGACATTCAAGTTCGTTTGTATTCTA  
 CCTTTGTA AAAACAGCCTATAGATGATGATGTGTTGGGATACTGCTATTTTTATGATAGT  
 TTGTCCTGTGCCTTAGTGATGTGTGTGTGTCTCCATGCACATGCACGCCGGGATTCCCTC  
 TGCTGCCATTTGAATTAGAAGAAAAATTTTATATGCATGCACAGGAAGATATTGGTGGC  
 CGGTGGTTTTGTCTTAAAAATGCAATATCTGACCAAGATTCGCAATCTCATAACAAGC  
 CATTACTTTGCAAGTGAGATAGCTTCCCACCAGCTTTATTTTTAACATGAAAGCTGA  
 TGCCAAGGCCAAAAGAAGTTTTAAAGCATCTGAAATTTGGACTGTTTTCTTCAACCACC  
 ATTTTTTTGTGGTTATTATTTTTGTACGGAAGCATCCTCTCAAAGTTGGAGCTTCT  
 ATTGCCATGAACCATGCTTACAAAGAAAGCACTTCTTATTGAAGTGAATCCTGCATTTG  
 ATAGCAATGTAAGTGCCTATAACCATGTTCTATATTCTTTATTCTCAGTAACTTTTTAAAA  
 GGGAAAGTTATTTATTTTTGTGTATAATGTGCTTTATTTGCAAATCACCCACTCCTTTAC  
 AACCACTTTTATATATGTACATACATTCACTGTAGAAACCAGCTCATGTGTACTCTCA  
 TATCCCATCCTTAAGAGAAGAAATGTTATAAAGTAGAACTAAATATAAATTTTTCAGAATT  
 AATGCATTCAAAGTAATATATCAAATCCAGGACTTTGTTAACTTCAGGTA AAAACTTCAT  
 TAGGGTAATATCATCTCAATTTTTTCAAATGAAAGGATTCTAATTAGAAATTTATATG  
 TCAGAGCTGTTATAAATTTATCAACTGTCAAATATGTTCTGGACAGCTAAATCATTGAG  
 ATTTTTGGTTTTTTGATTTCTATTCCCTAACTTGTAAGACAATGAAAAATCAGGCAGAA  
 ATATTTAGTATCTAGTCAGTATCTGTAGCTACACTGTATAACTGTTCTTCAATAAAATGG  
 TTCATATTTTATAGAAAAA AAAAAAAAAAAAAAAAAA

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_004329 unedited  
 TGTAAACGACTCACTATAGGGCGGCCGGAATTCGGCAGAGGGTCCGTCGCGCGCGG  
 CGAAGATCGCACGCCCGATCGAGGGGCGACCGGTCGGGGCCGCTGCACGCCAAGGGCG  
 AAGGCCGATTCGGGCCCACTTCGCCCGCGGGCTCGCCGCGCCACCCGCTCCGCGCCG  
 AGGGCTGGAGGATGCGTTCCTGGGGTCCGGACTTATGAAAATATGCATCAGTTTAAATAC  
 TGTCTTGGAAATCATGAGATGGAAGCATAGGTCAAAGCTGTTGGAGAAAATCAGAAGTA  
 CAGTTTTATCTAGCCACATCTTGGAGGAGTCGTAAGAAAGCAGTGGGAGTTGAAGTCATT  
 GTCAAGTGCTTGGCATCTTTACAAGAAAATCTCACTGAATGATAGTCATTTAAATTTGGT  
 GAAGTAGCAAGACCAATTATTAAGGTGACAGTACACAGGAAACATTACAATTGAACAAT  
 GCCTCAGCTATACATTTACATCAGATTATTGGGAGCCTATTTGTTTCATCTTTCTCGTGT  
 TCAAGGACAGAATCTGGATAGTATGCTTATGGCACTGGGATGAAATCAGACTCCGACCA  
 GAAAAAGTCAGAAAATGGAGTAACCTTAGCACCCAGAGGATACCTTGCCTTTTTTAAAGTG  
 CTATTGCTCAGGGCACTGTCCAGATGATGCTATTAATAACACATGCATAACTAATGGACA  
 TTGCTTTGCCATCATAGAAGAAGATGACCAGGGAGAAACCACATTAGCTTCAGGGTGTAT  
 GAAATATGAAGGATCTGATTTTTCAGTGCAAAGATTCTNCANAAGCCAGCTACGCCCGGA  
 CATAGAATGTTGTGCGACCAATTTATGTNACCAGTATTTGCAACCACACTNNGCCCTGT  
 GTCATAGGTCCGTTTTTGTATGCAGCATCGAATGGCTGGTC

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_004329 unedited  
 GCCGCAATCTANAGTCGAGTTTTTTTTTTTTTTTTTTTTTTTTCTATAAAATATGAACCATT  
 TTATTGAAGAACAGTTATACAGTGTAGCTACAGATACTGACTAGATACTAAATATTTCTG  
 CCTGATTTTTCATTGTCTTCACAAGTTAGGGAATAGAAATCAAAAACCAAAAATCTCAA  
 ATGATTTAGCTGTCCAGAACATATTTGACAGTTGATAAAATTTATAACAGCTCTGACATAT  
 AAATTTCTAATTAGAGAATCCTTTCATTTGAAAAAATTGAGATGATATTACCCTAATGAA  
 GTTTTTACCTGAAGTTAACAAAGTCCTGGATTTGATATATTACTTTGAATGCATTAATTC  
 TGAAAAATTTATATTTAGTTCTACTTTATAACATTTCTTCTCTTAAGGATGGGATATGAGG  
 TACACATGAGCTGGTTTCTACAGTATGAATGTATGTACATATATAAAGTATGGTTGTAAA  
 GGAGTGGGTGATTTGCAAATAAAGCACATTATACACAAAATATAAATAACCTTCCCTTTT  
 AAAAGTTACTGAGAATAAAGAATATAGAACATGGTTATAGGCACTTACATTGCTATCAA  
 TGCAGGAATTCATTTCAATAAAGAGTGCTTTCTTTGTAGCATGTTTCATGGCATAGAAGCTC  
 ACTTTGGAGAGATGCTTTCGTGACAAAAATATACCACAAAAAAATGTGGGTTGAGGAAAC  
 AGNTCAAATTACAGATGCTTTAACTTCTTTGGNCTTGGCATCAGCTTTCATGGTAAAA  
 ATAAAGCTGGTGGGAAGCTATCTACTTGCAAGTAAATGGCTTGATGAAATTGCGAATCT  
 TGTGAGATTTGCATTTTTAAGCACAAACCCCGGCACCAATATTNCGTGGCAGCATATAAT  
 TTTTCTCTATTCAATGCAACAAGAAATCCCGGTGCTTGCCTGGGACCCCTTCTCTAG  
 CCCCACAAACTTCTAAATAGNCGTTCACCCCATATCTTTAGCCGGTTCAAGGTAATC  
 ACAACTGAG

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_004329

**Insert Size:**

3370 bp

**OTI Disclaimer:**

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**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).

<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_004329.2</a> , <a href="#">NP_004320.2</a>
<b>RefSeq Size:</b>	3631 bp
<b>RefSeq ORF:</b>	1599 bp
<b>Locus ID:</b>	657
<b>UniProt ID:</b>	<a href="#">P36894</a>
<b>Cytogenetics:</b>	10q23.2
<b>Domains:</b>	Activin_recp, pkinase, TyrKc, S_TKc, GS
<b>Protein Families:</b>	Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase, Transmembrane
<b>Protein Pathways:</b>	Cytokine-cytokine receptor interaction, TGF-beta signaling pathway
<b>Gene Summary:</b>	The bone morphogenetic protein (BMP) receptors are a family of transmembrane serine/threonine kinases that include the type I receptors BMPR1A and BMPR1B and the type II receptor BMPR2. These receptors are also closely related to the activin receptors, ACVR1 and ACVR2. The ligands of these receptors are members of the TGF-beta superfamily. TGF-betas and activins transduce their signals through the formation of heteromeric complexes with 2 different types of serine (threonine) kinase receptors: type I receptors of about 50-55 kD and type II receptors of about 70-80 kD. Type II receptors bind ligands in the absence of type I receptors, but they require their respective type I receptors for signaling, whereas type I receptors require their respective type II receptors for ligand binding. [provided by RefSeq, Jul 2008]