

## Product datasheet for **RC206048**

### **BMPR1A (NM\_004329) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	BMPR1A (NM_004329) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	BMPR1A
Synonyms:	10q23del; ACVRLK3; ALK3; CD292; SKR5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC206048 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGCCTCAGCTATACATTTACATCAGATTATTGGGAGCCTATTTGTTTCATATTTCTCGTGTTCAGGAC  
 AGAATCTGGATAGTATGCCTCATGGCACTGGGATGAAATCAGACTCCGACCAGAAAAAGTCAGAAAATGG  
 AGTAACCTTAGCACCAGAGGATACCTTGCCTTTTTTAAAGTGCTATTGCTCAGGGCACTGTCAGATGAT  
 GCTATTAATAACACATGCATAACTAATGGACATTGCTTTGCCATCATAAGAAGATGACCAGGGAGAAA  
 CCACATTAGCTTCAGGGTGTATGAAATATGAAGGATCTGATTTTCAGTGCAAAGATTCTCCAAAAGCCCA  
 GCTACGCCGACAATAGAATGTTGTCGGACCAATTTATGTAACCAGTATTTGCAACCCACACTGCCCCCT  
 GTTGTCATAGGTCGTTTTTTGATGGCAGCATTGATGGCTGGTTTTGCTCATTTCTATGGCTGTCTGCA  
 TAATTGCTATGATCATCTTCTCCAGCTGCTTTTGTACAACATTATTGCAAGAGCATCTCAAGCAGACG  
 TCGTTACAATCGTGATTTGGAACAGGATGAAGCATTTATCCAGTTGGAGAATCACTAAAAGACCTTATT  
 GACCAGTCACAAAGTTCTGGTAGTGGGTCTGGACTACCTTATTGGTTACGCGAACTATTGCCAAACAGA  
 TTCAGATGGTCCGGCAAGTTGGTAAAGGCCGATATGGAGAAGTATGGATGGGCAATGGCGTGGCGAAAA  
 AGTGGCGGTGAAAGTATCTTTACCACTGAAGAAGCCAGCTGGTTTCGAGAAAACAGAAATCTACCAAAT  
 GTGCTAATGCGCCATGAAAACATACTTGGTTTCATAGCGGCAGACATTAAGGTACAGGTTCTGGACTC  
 AGCTCTATTTGATTACTGATTACCATGAAAATGGATCTCTCTATGACTTCTGAAATGTGCTACACTGGA  
 CACCAGAGCCCTGCTTAAATTGGCTTATCAGCTGCCTGTGGTCTGTGCCACCTGCACACAGAAATTTAT  
 GGCACCAAGGAAAGCCCGCAATTGCTCATCGAGACCTAAAGAGCAAAAACATCCTCATCAAGAAAAATG  
 GGAGTTGCTGCATTGCTGACCTGGCCCTTGTGTTAAATCAACAGTGACACAAATGAAGTTGATGTGCC  
 CTTGAATACCAGGTGGGCACCAACGCTACATGGCTCCCGAAGTCTGGACGAAAGCCTGAACAAAAAC  
 CACTTCCAGCCCTACATCATGGCTGACATCTACAGCTTCGGCCTAATCATTTGGGAGATGGCTCGTCGTT  
 GTATCACAGGAGGGATCGTGGAAGAATACCAATTGCCATATTACAACATGGTACCGAGTATCCGTCATA  
 CGAAGATATGCGTGAGGTTGTGTGTGTCAAACGTTTGGCGCAATTGTGTCTAATCGGTGGAACAGTGAT  
 GAATGTCTACGAGCAGTTTTGAAGCTAATGTCAGAATGCTGGGCCACAATCCAGCCTCCAGACTCACAG  
 CATTGAGAATTAAGAAGACGCTTGCCAAGATGGTTGAATCCCAAGATGTAATAAT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC206048 protein sequence  
 Red=Cloning site Green=Tags(s)

MPQLYIYIRLLGAYLFIIISRVQGNLDSMLHGTGMKSDSDQKSENGVTLAPEDTL PFLKCYCSGHCPDD  
 AINNTCITNGHCF AIEEDDQGETTLASGCMKYE GSD FQCKDSPKAQLRRTIECCRTNLCNQYLQPTLPP  
 VVIGPFFDGSIRWL VLLISMAVCI IAMIIFSSFCYKHYCKSISSRRRYNRDLEQDEAFIPVGESLKDLI  
 DQSQSSGSGSGLPLL VQRTIAKQIQMVRQV GKGRYGEVWMGKWRGEKVAVKVFFTTTEEASWFRETEIYQT  
 VLMRHENILGFIAADIKGTGSWTQLYLITDYHENGSLYDFLKCATLDTRALLKLAYSACGLCHLHTEIY  
 GTQGKPAIAHRDLKSKNILIKKNGSCCIADLGLAVKFNSDTNEVDVPLNTRVGTKRYMAPEVLDLNLKN  
 HFQPYIMADIYSFGLIIWEMARRCITGGIVEEYQLPYNYMVPSPSYEDMREVVCVKRLRPVSNRWNSD  
 ECLRAVLKLMSECAHNPASRLTALRIKKTAKMVESQDVKI

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6072\\_b01.zip](https://cdn.origene.com/chromatograms/mk6072_b01.zip)

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_004329

**ORF Size:** 1596 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:**

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:** [NM\\_004329.3](#)

**RefSeq Size:** 3631 bp

**RefSeq ORF:** 1599 bp

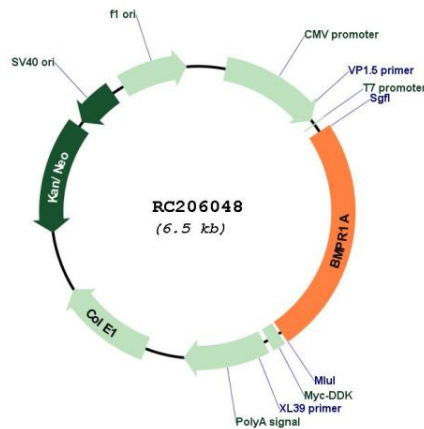
**Locus ID:** 657

**UniProt ID:** [P36894](#)

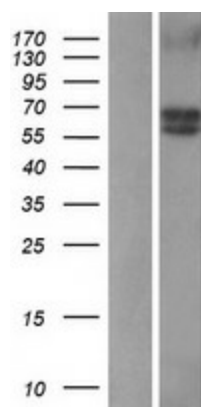
**Cytogenetics:** 10q23.2

<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>MW:</b>	60.2 kDa
<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]

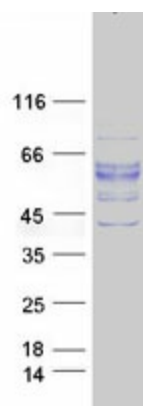
**Product images:**



Circular map for RC206048



Western blot validation of overexpression lysate (Cat# [LY418061]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206048 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified BMPR1A protein (Cat# [TP306048]). The protein was produced from HEK293T cells transfected with BMPR1A cDNA clone (Cat# RC206048) using MegaTran 2.0 (Cat# [TT210002]).