OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC208673

BMPR2 (NM_001204) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BMPR2 (NM_001204) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	BMPR2
Synonyms:	BMPR-II; BMPR3; BMR2; BRK-3; POVD1; PPH1; T-ALK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC208673 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACTTCCTCGCTGCAGCGGCCCTGGCGGGTGCCCTGGCTACCATGGACCATCCTGCTGGTCAGCACTG
CGGCTGCTTCGCAGAATCAAGAACGGCTATGTGCGTTTAAAGATCCGTATCAGCAAGACCTTGGGATAGG
TGAGAGTAGAATCTCTCATGAAAATGGGACAATATTATGCTCGAAAGGTAGCACCTGCTATGGCCTTTGG
GAGAAATCAAAAGGGGACATAAATCTTGTAAAACAAGGATGTTGGTCTCACATTGGAGATCCCCAAGAGT
GTCACTATGAAGAATGTGTAGTAACTACCACTCCTCCCTCAATTCAGAATGGAACATACCGTTTCTGCTG
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CCACCTCATTCATTTAACCGAGATGAGACAATAATCATTGCTTTGGCATCAGTCTCTGTATTAGCTGTTT
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CATGATGGAGGCAGCAGCATCCGAACCCTCTCTTGATCTAGATAATCTGAAACTGTTGGAGCTGATTGGC
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AGAAAATAGCCTGGCAGTGAGGTCACTCAAGGAGACAATCGAAGACTGTTGGGACCAGGATGCAGAGGCT

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CGGCTTACTGCACAGTGTGCTGAGGAAAGGATGGCTGAACTTATGATGATTTGGGAAAGAAACAAATCTG
TGAGCCCAACAGTCAATCCAATGTCTACTGCTATGCAGAATGAACGCAACCTGTCACATAATAGGCGTGT
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CTTAAGCGGTGGCGCCCCTCCACCTGGGTCATCTCCACTGAATCGCTGGACTGTGAAGTCAACAATAATG
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CATGGTGTCTAAAGATATAGGAATGAACTGTCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC208673 protein sequence
Red=Cloning site Green=Tags(s)

MTSSLQRPWRVPWLPWTILLVSTAAASQNQERLCAFKDPYQQDLGIGESRISHENGTILCSKGSTCYGLW
EKSKGDINLVKQGCWSHIGDPQECHYEECVVTTTPPSIQNGTYRFCCCSTDLCNVNFTENFPPPDTTPLS
PPHSFNRDETIIIALASVSVLAVLIVALCFGYRMLTGDRKQGLHSMNMMEAAASEPSLDLDNLKLLELIG
RGRYGAVYKGSLDERPVAVKVFSFANRQNFINEKNIYRVPLMEHDNIARFIVGDERVTADGRMEYLLVME
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DFGLSMRLTGNRLVRPGEEDNAAISEVGTIRYMAPEVLEGAVNLRDCESALKQVDMYALGLIYWEIFMRC
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LKFGSKHKSNLKQVETGVAKMNTINAAEPHVVTVTMNGVAGRNHSVNSHAATTQYANGTVLSGQTTNIVT
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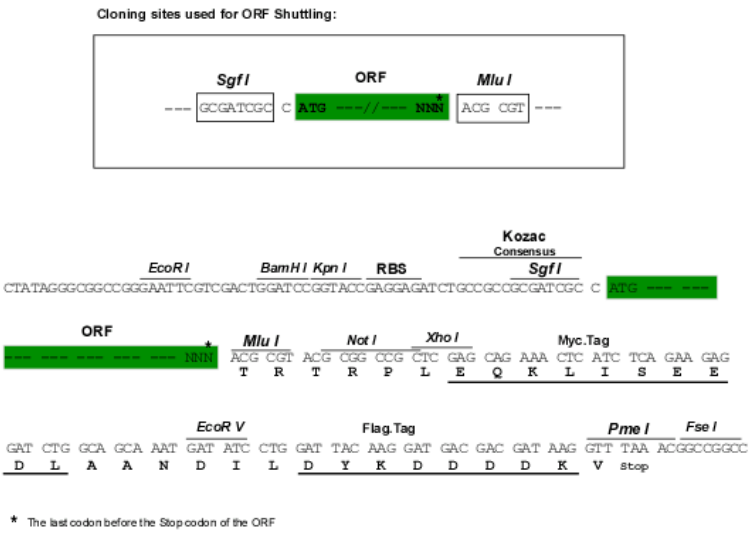
SEQDVLAQGVPSTAADPGPSKPRRAQRPNSLDLSATNVLDGSSIQIGESTQDGKSGSGEKIKKRVKTPYS
LKRWRPSTWVISTESLDCEVNNNGSNRAVHSKSSTAVYLAEGGTATTMVSKDIGMNCL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6262_f05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001204

ORF Size: 3114 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 or by calling 301.340.3188 option 3 for pricing and delivery.

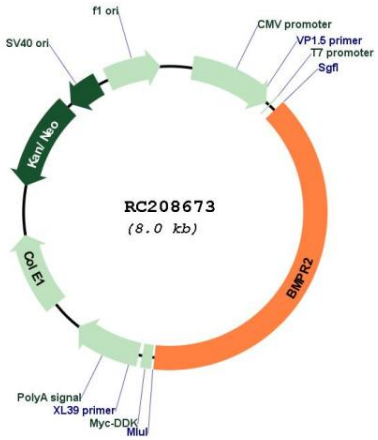
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.

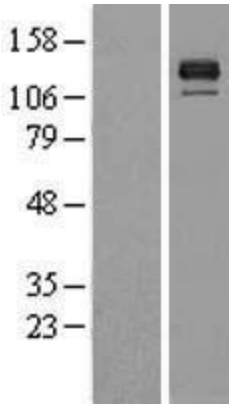
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_001204.7
RefSeq Size:	12086 bp
RefSeq ORF:	3117 bp
Locus ID:	659
UniProt ID:	Q13873
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
MW:	115.2 kDa
Gene Summary:	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]

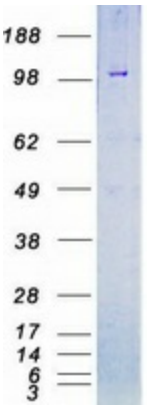
Product images:



Circular map for RC208673



Western blot validation of overexpression lysate (Cat# [LY420077]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208673 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified BMPR2 protein (Cat# [TP308673]). The protein was produced from HEK293T cells transfected with BMPR2 cDNA clone (Cat# RC208673) using MegaTran 2.0 (Cat# [TT210002]).