

Product datasheet for **RG206048**

BMPR1A (NM_004329) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BMPR1A (NM_004329) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	BMPR1A
Synonyms:	10q23del; ACVRLK3; ALK3; CD292; SKR5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG206048 representing NM_004329
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCCTCAGCTATACATTTACATCAGATTATTGGGAGCCTATTTGTTTCATATTTCTCGTGTTCAGGAC
 AGAATCTGGATAGTATGCCTCATGGCACTGGGATGAAATCAGACTCCGACCAGAAAAAGTCAGAAAATGG
 AGTAACCTTAGCACCAGAGGATACCTTGCCTTTTTTAAAGTGCTATTGCTCAGGGCACTGTCAGATGAT
 GCTATTAATAACACATGCATAACTAATGGACATTGCTTTGCCATCATAAGAAGATGACCAGGGAGAAA
 CCACATTAGCTTCAGGGTGTATGAAATATGAAGGATCTGATTTTCAGTGCAAAGATTCTCCAAAAGCCCA
 GCTACGCCGACAATAGAATGTTGTCGGACCAATTTATGTAACCAGTATTTGCAACCCACACTGCCCCCT
 GTTGTATAGGTCGTTTTTTGATGGCAGCATTGATGGCTGGTTTTGCTCATTCTATGGCTGTCTGCA
 TAATTGCTATGATCATCTTCTCCAGCTGCTTTTGTACAACATTATTGCAAGAGCATCTCAAGCAGACG
 TCGTTACAATCGTATTTGGAACAGGATGAAGCATTTATCCAGTTGGAGAATCACTAAAAGACCTTATT
 GACCAGTCACAAAGTTCTGGTAGTGGGTCTGGACTACCTTATTGGTTCCAGCAACTATTGCCAAACAGA
 TTCAGATGGTCCGGCAAGTTGGTAAAGGCCGATATGGAGAAGTATGGATGGGCAATGGCGTGGCGAAAA
 AGTGGCGGTGAAAGTATCTTTACCCTGAAGAAGCCAGCTGGTTTCGAGAAACAGAAATCTACCAAAT
 GTGCTAATGCGCCATGAAAACATACTTGGTTTCATAGCGGCAGACATTAAGGTACAGGTTCTGGACTC
 AGCTCTATTTGATTACTGATTACCATGAAAATGGATCTCTCTATGACTTCCTGAAATGTGCTACTGGA
 CACCAGAGCCCTGCTTAAATTGGCTTATCAGCTGCCTGTGGTCTGTGCCACCTGCACACAGAAATTTAT
 GGCACCAAGGAAAGCCCGCAATTGCTCATCGAGACCTAAAGAGCAAAAACATCCTCATCAAGAAAAATG
 GGAGTTGCTGCATTGCTGACCTGGCCCTTGCTGTTAAATCAACAGTGACACAAATGAAGTTGATGTGCC
 CTTGAATACCAGGTGGGCACCAACGCTACATGGCTCCCGAAGTCTGGACGAAAGCCTGAACAAAAAC
 CACTTCCAGCCCTACATCATGGCTGACATCTACAGCTTCGGCCTAATCATTGGGAGATGGCTCGTCGTT
 GTATCACAGGAGGATCGTGAAGAATACCAATTGCCATATTACAACATGGTACCGAGTATCCGTCATA
 CGAAGATATGCGTGAGGTTGTGTGTGCAACGTTTGGCGCAATTGTGTCTAATCGGTGGAACAGTGAT
 GAATGTCTACGAGCAGTTTTGAAGCTAATGTCAGAATGCTGGGCCACAATCCAGCTCCAGACTCACAG
 CATTGAGAATTAAGAAGACGCTTGCCAAGATGTTGAATCCCAAGATGTAATAAT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG206048 representing NM_004329
 Red=Cloning site Green=Tags(s)

MPQLYIYIRLLGAYLFIISRVQGNLDSMLHGTGMKSDSDQKSENGVTLAPEDTLPFLKCYCSGHCPDD
 AINNTCITNGHCFAIIEEDDQGETTLASGCMKYEKSDQCKDSPAQLRRTIECCRTNLCNQLQPTLPP
 VVIGPFFDGSIRWLVLLISMAVCIAMIIFFSSFCYKHYCKSISRRRYNRDLEQDEAFIPVGESLKDLI
 DQSQSSGSGSGLPLLVRTIAKQIQMVRQVKGGRYGEVWMGKWRGEKVAVKVFVFTTEEASWFRETEIYQT
 VLMRHENILGFIAADIKGTGSWTQLYLITDYHENGSLYDFLKCATLDTRALLKLAYSAAAGLCHLHTEIY
 GTQGKPAIAHRDLKSKNILIKKNGSCCIADLGLAVKFNSDTNEVDVPLNTRVGTKRYMAPEVLDLNLKN
 HFQPYIMADIYSFGLIIEWMARRCITGGIVEEYQLPYNMPSPDPSYEDMREVVCVKRLRPIVSNRWNSD
 ECLRAVLKLMSECAWHPASRLTALRIKKTAKMVESQDVKI

TRTRPLE – GFP Tag – V

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

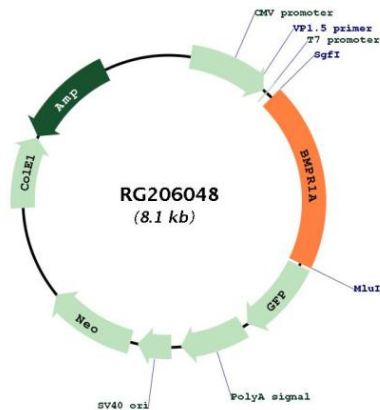
Domains: Activin_recp, pkinase, TyrKc, S_TKc, GS

Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase, Transmembrane

Protein Pathways: Cytokine-cytokine receptor interaction, TGF-beta signaling pathway

Gene Summary: 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 RG206048