

Product datasheet for **RG232877**

BMPR1B (NM_001256794) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BMPR1B (NM_001256794) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	BMPR1B
Synonyms:	ALK-6; ALK6; AMDD; BDA1D; BDA2; CDw293
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG232877 representing NM_001256794
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCTTTTGCAGAGTGCAGGAAAATTAATGTGGCACCAGAAAGAGGATGGTGAGAGTACAGCCCCCA
 CCCCCGTCCAAAGGCTTTCGTTGTAATGCCACCACCATTTGCCAGAAGACTCAGTCAACAATATTTG
 CAGCACAGACGGATATTGTTTCACGATGATAGAAGAGGATGACTCTGGGTTGCCTGTGGTCACTTCTGGT
 TGCTTAGGACTAGAAGGCTCAGATTTTCAGTGTGGGACACTCCCATTCTCATCAAAGAAGATCAATTG
 AATGCTGCACAGAAAGGAACGAATGTAATAAAGACCTACACCCTACACTGCCTCCATTGAAAAACAGAGA
 TTTTGTGATGGACCTATACACCACAGGGCTTTACTTATATCTGTGACTGTCTGTAGTTTGTCTTGGTC
 CTTATCATATTATTTGTTACTTCCGGTATAAAGACAAGAAACCAGACCTCGATACAGCATTGGGTTAG
 AACAGGATGAAACTTACATTCCTCCTGGAGAATCCCTGAGAGACTTAATTGAGCAGTCTCAGAGCTCAGG
 AAGTGGATCAGGCTCCCTCTGCTGGTCCAAGGACTATAGCTAAGCAGATTCAGATGGTGAACAGATT
 GAAAAAGTTCGCTATGGGGAAGTTTGGATGGGAAAGTGGCGTGGCGAAAAAGGTAGCTGTGAAAGTGTCT
 TACCACAGAGGAAGCCAGCTGGTTCAGAGAGACAGAAATATATCAGACAGTGTGATGAGGCATGAAAA
 CTTTTGGGTTTCATTGCTGCAGATATCAAAGGACAGGGTCTGGACCCAGTTGTACCTAATCACAGAC
 TATCATGAAAAATGGTTCCTTTATGATTATCTGAAGTCCACCACCTAGACGCTAAATCAATGCTGAAGT
 TAGCCTACTCTTCTGTCAGTGGCTTATGTCATTTACACACAGAAATCTTTAGTACTCAAGGCAAACCAGC
 AATTGCCATCGAGATCTGAAAAGTAAAAACATTTCTGGTGAAGAAAAATGGAAGTGTGCTGTATTGCTGAC
 CTGGGCTGGCTGTTAAATTTATTAGTGATACAAATGAAGTTGACATACCACCTAACACTCGAGTTGGCA
 CCAAACGCTATATGCCTCCAGAAGTGTGGACGAGAGCTTGAACAGAAATCACTCCAGTCTTACATCAT
 GGCTGACATGTATAGTTTTGGCCTCATCTTTGGGAGGTTGCTAGGAGATGTGTATCAGGAGGTATAGTG
 GAAGAATACCAGCTTCTTATCATGACCTAGTGGCCAGTGACCCCTCTTATGAGGACATGAGGGAGATTG
 TGTGCATCAAGAAGTTACGCCCTCATTCCCAAACCGGTGGAGCAGTGTGAGTGTCTAAGGCAGATGGG
 AAAACTCATGACAGAATGCTGGGCTCACAATCTGCATCAAGGCTGACAGCCCTGCGGGTTAAGAAAAACA
 CTTGCCAAAATGTCAGAGTCCCAGGACATTAAACTC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG232877 representing NM_001256794
 Red=Cloning site Green=Tags(s)

MLLRSAGKLNVTGKEDGESTAPTPRPKVL RCKCHHCPEDSVNNICSTDGYCFTMIEEDDSGLPVVTSG
 CLGLEGSDFQCRDTPIPHQRRSIECCTERNECNKDLHPTLPPLKNRDFVDGPIHHRALLISVTVCSLLL
 LIILFCYFRYKRQETRPYSIGLEQDETYIPPGESLRDLIEQSQSSGSGSGLPLLVRTIAKQIQMVKQI
 GKGRYGEVWMGKWRGEKVAVKVFFTTEEASWFRETEIYQTVLMRHENILGFIAADIKGTGSWTQLYLITD
 YHENGSLYDYLKSTLLDAKSMKLAYSSVSGLCHLHTEIFSTQGKPAIAHRDLKSKNILVKKNGTCCIA
 LGLAVKFI SDTNEVDIPPNTRVGTRKRYMPPEVLDESLNRNHFQSYIMADMYSFGLILWEVARRCVSGGIV
 EEYQLPYHDLVSPDPSYEDMREIVCIKKLRPSFPNRWSSDECLRQMGLMTECWAHPASRLTALRVKKT
 LAKMSESQDIKL

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

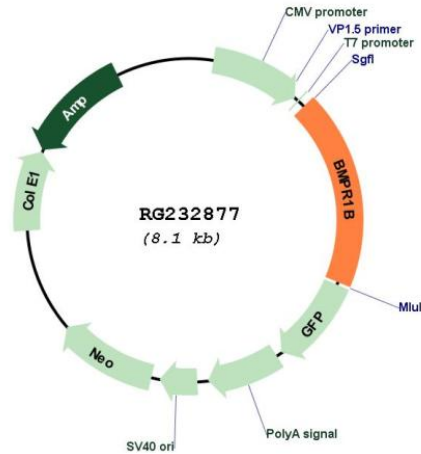
Cloning sites used for ORF Shutting:



EcoRI BamHI KpnI RBS Kozac Consensus SgfI AscI
 CTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGSAGATCTGCCGCCGATCGCCGGCGCCAGATCT

 HindIII NheI RsrII MluI NotI XhoI GFP Tag
 CAAGCTTAAGCTAGCTAGCGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC --- ---
 T R T R P L E M E S D - - -

 PmeI FseI
 --- GAA GAA AGA GTT TAA ACGGCCGGCCGGGAGCT
 - - E E R V Stop

Plasmid Map:


ACCN: NM_001256794

ORF Size: 1506 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:	<ol style="list-style-type: none">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:	<u>NM_001256794.1</u> , <u>NP_001243723.1</u>
RefSeq Size:	5440 bp
RefSeq ORF:	1509 bp
Locus ID:	658
UniProt ID:	<u>O00238</u>
Cytogenetics:	4q22.3
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 BMPs, which 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 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. Mutations in this gene have been associated with primary pulmonary hypertension. Several transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Feb 2012]</p>