

## Product datasheet for **RG206920**

### Activin A Receptor Type IB (ACVR1B) (NM\_004302) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Activin A Receptor Type IB (ACVR1B) (NM_004302) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Activin A Receptor Type IB
Synonyms:	ACTRIB; ACVRLK4; ALK4; SKR2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG206920 representing NM\_004302  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGGAGTCGGCCGGAGCCTCCTCCTTCTTCCCTTGTGTCTCCTGCTCGCCGGCAGCGCGGGT  
 CCGGGCCCCGGGGTCCAGGCTCTGCTGTGTGGTGCACACAGCTGCCTCCAGGCCAACTACACGTGTGA  
 GACAGATGGGCTGCATGGTTTCCATTTTCAATCTGGATGGGATGGAGCACCATGTGCGCACCTGCATC  
 CCCAAAGTGGAGCTGGTCCCTGCCGGGAAGCCCTTCTACTGCCTGAGCTCGGAGGACCTGCGCAACACCC  
 ACTGCTGTACTACTGACTACTGCAACAGGATCGACTTGAGGGTGCCAGTGGTACCTCAAGGAGCCTGA  
 GCACCCGTCCATGTGGGCGCCGGTGGAGCTGGTAGGCATCATCGCCGGCCCGGTGTTCTCTCTGTTCTC  
 ATCATCATATTGTTTCTTGTCTTAACTATCATCAGCGTGTCTATCACAACCGCCAGAGACTGGACA  
 TGGAGATCCCTCATGTGAGATGTCTCTCAAAGACAAGACGCTCCAGGATCTTGTCTACGATCTCTC  
 CACCTCAGGGTCTGGCTCAGGGTACCCTCTTTGTCCAGCGCACAGTGGCCGAACCATGTTTTACAA  
 GAGATTATTGGCAAGGGTCGGTTTGGGGAAGTATGGCGGGCCCGTGGAGGGTGGTGTGTGGCTGTGA  
 AAATATCTCTTCTCGTGAAGAACGGTCTTGGTTCAGGGAAGCAGAGATATACCAGACGGTCATGCTGCG  
 CCATGAAAACATCCTTGGATTTATTGCTGCTGACAATAAAGATAATGGCACCTGGACACAGCTGTGGCTT  
 GTTCTGACTATCATGAGCACGGTCCCTGTTTATTGATTATCTGAACCGGTACACAGTGACAATTGAGGGGA  
 TGATTAAGCTGGCCTGTCTGCTGCTAGTGGGCTGGCACACCTGCACATGGAGATCGTGGGCACCCAAGG  
 GAAGCCTGGAATTGCTCATCGAGACTTAAAGTCAAAGAACATTCTGGTGAAGAAAAATGGCATGTGTGCC  
 ATAGCACCTGGGCTGGTGTCCGTCATGATGCAGTCACTGACACCATTGACATTGCCCGAATCAGA  
 GGGTGGGACCAAACGATACATAGCCCTGAAGTACTTGGTGAACCATTAAATATGAAACACTTTGACTC  
 CTTTAAATGTGCTGATATTTATGCCCTCGGCTTGTATATTGGGAGATTGCTCGAAGATGCAATTCTGGA  
 GGAGTCCATGAAGAATATCAGCTGCCATATTACGACTTAGTCCCTCTGACCCCTCCATTGAGGAAATGC  
 GAAAGGTTGTATGTGATCAGAAGCTGCGTCCCAACATCCCAACTGGTGGCAGAGTTATGAGGCACTGCG  
 GGTGATGGGGAAGATGATGCGAGAGTGTGGTATGCCAACGGCGCAGCCCGCTGACGGCCCTGCGCATC  
 AAGAAGACCTCTCCAGCTCAGCGTGCAGGAAGACGTGAAGATC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

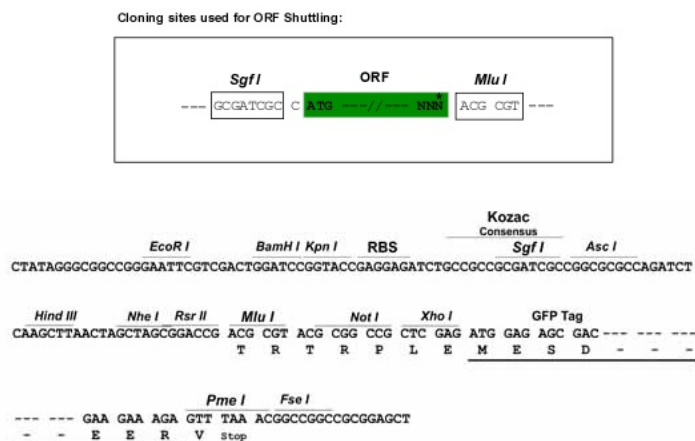
>RG206920 representing NM\_004302  
 Red=Cloning site Green=Tags(s)

MAESAGASSFFPLVLLLAGSGSGPRGVQALLCACTSCLQANYTCETDGACMVSIFNLDGMEHHVRTCI  
 PKVELVPAGKPFYCLSSDLRNTHCCYTDYCNRIDLRVPSGHLKEPEHPSMWGPVELVGIAGPVFLLFL  
 IIIIVFLVINYHQRVYHNRQRLDMEDPSCSEMCLSKDKTLQDLVYDLSTSGSGSGLPLFVQRTVARTIVLQ  
 EIIIGKGRFGEVWRGRWGGDVAVKIFSSREERSWFREAEIYQTVMLRHENILGFIAADNKDNGTWTQLWL  
 VSDYHEHGSLFDYLNRYVTIEGMIKLALSAASGLAHLHMEIVGTQGKPGIAHRDLKSKNILVKKNGMCA  
 IADLGLAVRHDAVTDIDIANQRVGTKRYMAPEVLDETINMKHFDSFKCADIYALGLVYWEIARRCNSG  
 GVHEEYQLPYYDLVPSDPSIEEMRKVVCDQKLRPNIPNWWQSYEALRVMGKMMRECWYANGAARLTALRI  
 KKTLSQLSVQEDVKI

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_004302

**ORF Size:** 1515 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\\_004302.5](#)

**RefSeq Size:** 4540 bp

**RefSeq ORF:** 1518 bp

**Locus ID:** 91

**UniProt ID:** [P36896](#)

**Cytogenetics:** 12q13.13

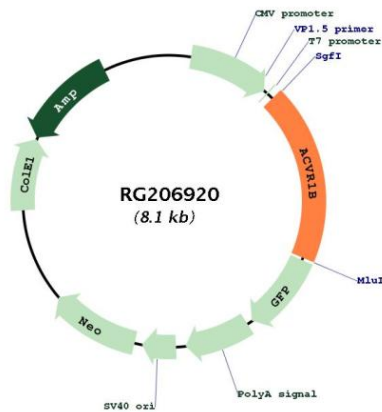
**Domains:** Activin\_recp, pkinase, TyrKc, S\_TKc, GS

**Protein Families:** Druggable Genome, Protein Kinase, Transmembrane

**Protein Pathways:** Adherens junction, Chronic myeloid leukemia, Colorectal cancer, Cytokine-cytokine receptor interaction, Endocytosis, MAPK signaling pathway, Pancreatic cancer, Pathways in cancer, TGF-beta signaling pathway

**Gene Summary:** This gene encodes an activin A type IB receptor. Activins are dimeric growth and differentiation factors which belong to the transforming growth factor-beta (TGF-beta) superfamily of structurally related signaling proteins. Activins signal through a heteromeric complex of receptor serine kinases which include at least two type I and two type II receptors. This protein is a type I receptor which is essential for signaling. Mutations in this gene are associated with pituitary tumors. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Jun 2010]

**Product images:**



Circular map for RG206920