

### Product datasheet for RC212816L4

#### OriGene Technologies, Inc.

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## Activin Receptor Type IIB (ACVR2B) (NM\_001106) Human Tagged Lenti ORF Clone

**Product data:** 

**Product Type:** Expression Plasmids

Product Name: Activin Receptor Type IIB (ACVR2B) (NM 001106) Human Tagged Lenti ORF Clone

Tag: mGFP

Symbol: Activin Receptor Type IIB

Synonyms: ActR-IIB; ACTRIIB; HTX4

Mammalian Cell

Selection:

Puromycin

**Vector:** pLenti-C-mGFP-P2A-Puro (PS100093)

E. coli Selection: Chloramphenicol (34 ug/mL)

**ORF Nucleotide** 

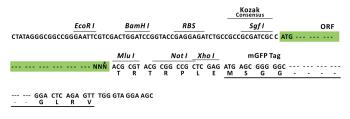
The ORF insert of this clone is exactly the same as(RC212816).

Sequence:

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF

**ACCN:** NM\_001106

ORF Size: 1536 bp



#### Activin Receptor Type IIB (ACVR2B) (NM\_001106) Human Tagged Lenti ORF Clone - RC212816L4

**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:** <u>NM 001106.2</u>

RefSeq Size: 1584 bp RefSeq ORF: 1539 bp

Locus ID: 93

UniProt ID: Q13705
Cytogenetics: 3p22.2

**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:** 57.5 kDa

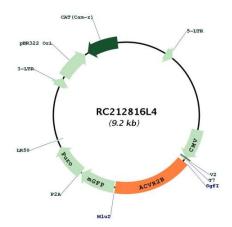
**Gene Summary:** Activins are dimeric growth and differentiation factors which belong to the transforming

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 (I and IB) and two type II (II and IIB) receptors. These receptors are all transmembrane proteins, composed of a ligand-binding extracellular domain with cysteine-rich region, a transmembrane domain, and a cytoplasmic domain with predicted serine/threonine specificity. Type I receptors are essential for signaling; and type II receptors are required for binding ligands and for expression of type I receptors. Type I and II receptors form a stable complex after ligand binding, resulting in phosphorylation of type I receptors by type II receptors. Type II receptors are considered to be constitutively active kinases. This gene encodes activin A type IIB receptor, which displays a 3- to 4-fold higher affinity for the ligand

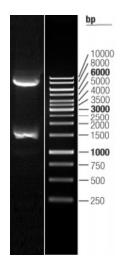
than activin A type II receptor. [provided by RefSeq, Jul 2008]



# **Product images:**



Circular map for RC212816L4



Double digestion of RC212816L4 using Sgfl and Mlul