

## Product datasheet for RC207486L3

## OriGene Technologies, Inc.

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## Activin Receptor Type IA (ACVR1) (NM\_001105) Human Tagged Lenti ORF Clone

**Product data:** 

**Product Type:** Expression Plasmids

**Product Name:** Activin Receptor Type IA (ACVR1) (NM\_001105) Human Tagged Lenti ORF Clone

Tag: Myc-DDK

Symbol: Activin Receptor Type IA

Synonyms: ACTRI; ACVR1A; ACVRLK2; ALK2; FOP; SKR1; TSRI

Mammalian Cell Puromycin

Selection:

Vector:

pLenti-C-Myc-DDK-P2A-Puro (PS100092)

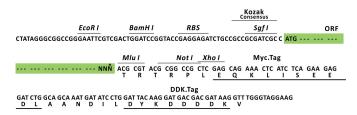
E. coli Selection: Chloramphenicol (34 ug/mL)

Sgfl-Mlul

ORF Nucleotide The ORF insert of this clone is exactly the same as(RC207486).

Sequence:

Restriction Sites: Cloning Scheme:



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

**ACCN:** NM\_001105

ORF Size: 1527 bp



## Activin Receptor Type IA (ACVR1) (NM\_001105) Human Tagged Lenti ORF Clone - RC207486L3

**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 001105.2</u>, <u>NP 001096.1</u>

**RefSeq Size:** 2952 bp **RefSeq ORF:** 1530 bp

Locus ID: 90

UniProt ID: Q04771

Cytogenetics: 2q24.1

**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

**MW:** 57.15 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. This gene encodes activin A type I receptor which signals a particular

transcriptional response in concert with activin type II receptors. Mutations in this gene are

associated with fibrodysplasia ossificans progressive. [provided by RefSeq, Jul 2008]