

## Product datasheet for RC219514L2

#### OriGene Technologies, Inc.

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# TGF beta Receptor I (TGFBR1) (NM\_004612) Human Tagged Lenti ORF Clone

**Product data:** 

**Product Type:** Expression Plasmids

**Product Name:** TGF beta Receptor I (TGFBR1) (NM\_004612) Human Tagged Lenti ORF Clone

Tag: mGFP

Symbol: TGF beta Receptor I

Synonyms: AAT5; ACVRLK4; ALK-5; ALK5; ESS1; LDS1A; LDS2A; MSSE; SKR4; tbetaR-I; TBR-I; TBRI;

TGFR-1

Mammalian Cell

Selection:

None

Vector:pLenti-C-mGFP (PS100071)E. coli Selection:Chloramphenicol (34 ug/mL)

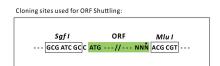
**ORF Nucleotide** 

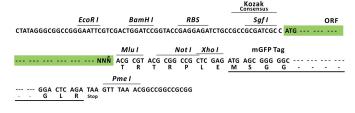
The ORF insert of this clone is exactly the same as(RC219514).

Sequence:

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





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

**ACCN:** NM\_004612 **ORF Size:** 1509 bp





**OTI Disclaimer:** 

Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:customercom">customercom</a> or by calling 301.340.3188 option 3 for pricing and delivery.

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. <u>More info</u>

**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 004612.2</u>

 RefSeq Size:
 6475 bp

 RefSeq ORF:
 1512 bp

 Locus ID:
 7046

 UniProt ID:
 P36897

 Cytogenetics:
 9q22.33

**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

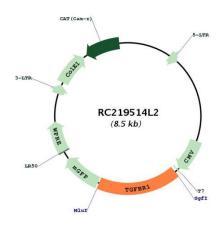
**MW:** 55.96 kDa



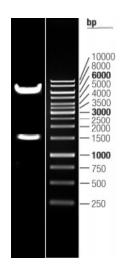
### **Gene Summary:**

The protein encoded by this gene forms a heteromeric complex with type II TGF-beta receptors when bound to TGF-beta, transducing the TGF-beta signal from the cell surface to the cytoplasm. The encoded protein is a serine/threonine protein kinase. Mutations in this gene have been associated with Loeys-Dietz aortic aneurysm syndrome (LDAS). Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Aug 2008]

## **Product images:**



Circular map for RC219514L2



Double digestion of RC219514L2 using Sgfl and Mlul  $\,$