

# TGFB3 Knockout 293T Cell Line, Homozygous

**Catalog No.: RM02751**

## Basic Information

**Catalog No.**

RM02751

**Category**

Cell Line

**Parental Cell line**

293T

**Genotype**

Knockout

## Gene Information

**Gene Symbol**

TGFB3

**Species**

Human

**Gene ID**

7043

**Swiss Prot**

P10600

**Synonyms**ARVD; LDS5; RNHF; ARVD1; TGF-beta3;  
TGFB3

## Contact

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## Background

This gene encodes a secreted ligand of the TGF-beta (transforming growth factor-beta) superfamily of proteins. Ligands of this family bind various TGF-beta receptors leading to recruitment and activation of SMAD family transcription factors that regulate gene expression. The encoded preproprotein is proteolytically processed to generate a latency-associated peptide (LAP) and a mature peptide, and is found in either a latent form composed of a mature peptide homodimer, a LAP homodimer, and a latent TGF-beta binding protein, or in an active form consisting solely of the mature peptide homodimer. The mature peptide may also form heterodimers with other TGF-beta family members. This protein is involved in embryogenesis and cell differentiation, and may play a role in wound healing. Mutations in this gene are a cause of aortic aneurysms and dissections, as well as familial arrhythmogenic right ventricular dysplasia 1.

## Product Information

**Description**

TGFB3 Knockout cell line is engineered from 293T cell line with Gene-Editing Technology.

Allele-1:130bp insertion in exon1

Allele-2:130bp insertion in exon1

Mammalian cells such as human, rat and mouse cells are normally diploid with two alleles. Homozygote: both alleles were knocked out, mRNA has no signal, no expression of proteins. Heterozygote: only one allele was knocked out, the mRNA transcript levels was decreased compared to wild type, and the protein expression levels was also lower than that of the wild type.

**Packaging**

1 vial parental cell line and 1 vial knockout cell line

**Shipping Conditions**

Dry ice

**Amount**1~5x10<sup>6</sup> cells/vial.**Storage**

Stored in liquid nitrogen for a long time less than -130°C. Minimizing freeze-thaw cycles.

**Protocol**

Upon arrival, it should be maintained in DMEM medium with 10%(v/v) fetal bovine serum and 100U penicillin-streptomycin, at 37°C with 5% CO<sub>2</sub> condition.

1. Thaw the vial in 37°C water bath, and shake it to melt as soon as possible.
2. Transfer the cell suspension to a 15mL conical tube with pre-warmed 5mL complete medium and centrifuge 1000rpm for approximately 5 minutes at room temperature.
3. Remove and discard the supernatant.
4. Resuspend the cell pellet with 1mL pre-warmed complete medium and seed in 10cm dish.
5. Add 8-10mL of complete medium.
6. Incubate the culture at 37°C incubator with 5% CO<sub>2</sub>.
7. A subcultivation ratio of 1:2-1:4 is recommended.

## Sequencing data

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WT    CCCCTGAGCCAACG                    GTGATGACCCACG  
Mut   CCCCTGAGCCAACG\*\*\*Insertion\*\*\*GTGATGACCCACG  
Allele-1:   130bp Insertion in exon1

WT    CCCCTGAGCCAACG                    GTGATGACCCACG  
Mut   CCCCTGAGCCAACG\*\*\*Insertion\*\*\*GTGATGACCCACG  
Allele-2:   130bp Insertion in exon1

Genome sequence analysis of PCR products from parental (WT) and TGFβ3 knockout (KO) 293T cells, using sanger sequencing.