

# GATA3 Knockout 293T Cell Line, Homozygous

**Catalog No.: RM02417**

## Basic Information

**Catalog No.**

RM02417

**Category**

Cell Line

**Parental Cell line**

293T

**Genotype**

Knockout

## Gene Information

**Gene Symbol**

GATA3

**Species**

Human

**Gene ID**

3635

**Swiss Prot**

Q92835

**Synonyms**SHIP; SHIP-1; SHIP1; SIP-145; hp51CN;  
p150Ship

## Contact

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## Background

This gene is a member of the inositol polyphosphate-5-phosphatase (INPP5) family and encodes a protein with an N-terminal SH2 domain, an inositol phosphatase domain, and two C-terminal protein interaction domains. Expression of this protein is restricted to hematopoietic cells where its movement from the cytosol to the plasma membrane is mediated by tyrosine phosphorylation. At the plasma membrane, the protein hydrolyzes the 5' phosphate from phosphatidylinositol (3,4,5)-trisphosphate and inositol-1,3,4,5-tetrakisphosphate, thereby affecting multiple signaling pathways. The protein is also partly localized to the nucleus, where it may be involved in nuclear inositol phosphate signaling processes. Overall, the protein functions as a negative regulator of myeloid cell proliferation and survival. Mutations in this gene are associated with defects and cancers of the immune system. Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq, Feb 2014]

## Product Information

**Description**

GATA3 Knockout 293T Cell line is engineered from 293T cell line with Gene-Editing Technology.

Allele-1:73bp deletion in exon1

Allele-2:1bp 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 CAGCCTCCTACA\*\*\*\*\*CCCGCCTACTACG  
Mut CAGCCTCCTACA\*\*\*Deletion\*\*\*CCCGCCTACTACG  
Allele-1: 73bp deletion in exon1

WT GCCTCAGCCACTCCTACAT GGACGCGGCGCAGTACCCG  
Mut GCCTCAGCCACTCCTACATGGAGGACGGGAAACCCG  
Allele-2: 1bp insertion in exon1

Genome sequence analysis of PCR products from parental (WT) and GATA3 knockout (KO) 293T cells, using sanger sequencing.