

# SQSTM Knockout 293T Cell Line, Homozygous

Catalog No.: RM02507

## Basic Information

**Catalog No.**

RM02507

**Category**

Cell Line

**Parental Cell line**

293T

**Genotype**

Knockout

## Gene Information

**Gene Symbol**

SQSTM

**Species**

Human

**Gene ID**

8878

**Swiss Prot**

Q13501

**Synonyms**A170; DMRV; FTDALS3; NADGP; OSIL;  
PDB3; ZIP3; p60; p62; p62B

## Contact

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## Background

This gene encodes a multifunctional protein that binds ubiquitin and regulates activation of the nuclear factor kappa-B (NF-κB) signaling pathway. The protein functions as a scaffolding/adaptor protein in concert with TNF receptor-associated factor 6 to mediate activation of NF-κB in response to upstream signals. Alternatively spliced transcript variants encoding either the same or different isoforms have been identified for this gene. Mutations in this gene result in sporadic and familial Paget disease of bone. [provided by RefSeq, Mar 2009]

## Product Information

**Description**

SQSTM Knockout 293T Cell Line is engineered from 293T cell line with Gene-Editing technology.

Allele-1:1bp insertion and 3bp deletion in exon2

Allele-2:1bp insertion and 17bp deletion in exon2

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 GCAA CAT\*\*CCAGAC\*\*\*\*\*GACTTGTAGCGT  
Mut GCAAACAT\*\*CCAGAC\*\*\*Deletion\*\*\*GACTTGTAGCGT  
Allele-1: 1bp Insertion and 3bp deletion in exon2

WT GCAA CAT\*\*GTGCAG\*\*\*\*\*ACTTGTAGCGTC  
Mut GCAAACAT\*\*GTGCAG\*\*\*Deletion\*\*\*ACTTGTAGCGTC  
Allele-2: 1bp Insertion and 17bp deletion in exon2

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