

# SQSTM1 Knockout 293T Cell Line, Homozygous

Catalog No.: RM01821

## Basic Information

### Catalog No.

RM01821

### Category

Cell Line

### Parental Cell line

293T

### Genotype

Knockout

## Gene Information

### Gene Symbol

SQSTM1

### 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.

## Product Information

### Description

SQSTM1 Knockout cell line is engineered from 293T cell line with Gene-Editing Technology.

Allele-1:1bp insertion in exon2

Allele-2:1bp insertion 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.

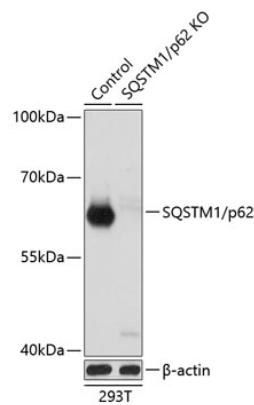
1. Thaw the vial in 37°C water bath, and shake it to melt as soon as possible.
2. Transfer the cell suspension to a 15mL conical tube with pre-warmed 5mL complete medium and centrifuge 1000rpm for approximately 5 minutes at room temperature.
3. Remove and discard the supernatant.
4. Resuspend the cell 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

WT GCTCAGGAGGCGCCCGCAA-CATGGTGACCCCCAATGTGA  
Mut GCTCAGGAGGCGCCCGCAAACATGGTGACCCCCAATGTGA  
Allele-1: 1bp insertion in exon2  
WT GCTCAGGAGGCGCCCGCAA-CATGGTGACCCCCAATGTGA  
Mut GCTCAGGAGGCGCCCGCAAACATGGTGACCCCCAATGTGA  
Allele-2: 1bp insertion in exon2

Genome sequence analysis of PCR products from parental (WT) and SQSTM1 knockout (KO) 293T cells, using sanger sequencing.

## WB data



Western blot analysis of extracts from parental (Control) and SQSTM1 knockout (KO) 293T cells, using SQSTM1 antibody at 1:1000 dilution.