## ITCH Knockdown 293T Cell Line, Heterozygous

## Basic Information

## Catalog No.

RM01931

Category
Cell Line
Parental Cell line
293T
Genotype
Knockdown

## Gene Information

Gene Symbol
ITCH

## Species

Human

Gene ID
83737
Swiss Prot
Q96J02

## Synonyms

ADMFD; AIF4; AIP4; NAPP1

## Contact



## Background

This gene encodes a member of the Nedd4 family of HECT domain E3 ubiquitin ligases. HECT domain E3 ubiquitin ligases transfer ubiquitin from E2 ubiquitin-conjugating enzymes to protein substrates, thus targeting specific proteins for lysosomal degradation. The encoded protein plays a role in multiple cellular processes including erythroid and lymphoid cell differentiation and the regulation of immune responses. Mutations in this gene are a cause of syndromic multisystem autoimmune disease. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Mar 2012]

## Product Information

## Description

ITCH Knockdown 293T Cell Line is engineered from 293T cell line with Gene-Editing Technology.
Allele-1:87bp deletion in exon2
Allele-2:86bp 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

$1 \sim 5 \times 10^{6}$ cells/vial

## Storage

Stored in liquid nitrogen for a long time less than $-130^{\circ} \mathrm{C}$. Minimizing freeze-thaw cycles.

## Protocol

Upon arrival, it should be maintained in DMEM medium with $10 \%(\mathrm{v} / \mathrm{v})$ fetal bovine serum and 100 U penicillin-streptomycin, at $37^{\circ} \mathrm{C}$ with $5 \% \mathrm{CO}_{2}$ condition.

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

## Sequencing data

WT GTTGTGACTTTGCA***************CAATGGTGAAACTA Mut GTTGTGACTTTGCA***Deletion***CAATGGTGAAACTA Allele-1: 87bp deletion in exon2
WT GTTGTGACTTTGCA***************CCAATGGTGAAACT
Mut GTTGTGACTTTGCA***Deletion***CCAATGGTGAAACT Allele-2: 86bp deletion in exon2

Genome sequence analysis of PCR products from parental (WT) and ITCH Knockdown (KD) 293T cells, using sanger sequencing.

