

ITCH Knockdown 293T Cell Line, Heterozygous

Catalog No.: RM01931

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

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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

1~5x10⁶ 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% CO₂ 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% CO₂.
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.