

# NDUFA11 Knockout 293T Cell Line, Homozygous

**Catalog No.:** RM02710

## Basic Information

**Catalog No.**

RM02710

**Category**

Cell Line

**Parental Cell line**

293T

**Genotype**

Knockout

## Gene Information

**Gene Symbol**

NDUFA11

**Species**

Human

**Gene ID**

126328

**Swiss Prot**

Q86Y39

**Synonyms**

B14.7; MC1DN14; CI-B14.7; NDUFA11

## Contact

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## Background

This gene encodes a subunit of the membrane-bound mitochondrial complex I. Complex I is composed of numerous subunits and functions as the NADH-ubiquinol reductase of the mitochondrial electron transport chain. Mutations in this gene are associated with severe mitochondrial complex I deficiency. Alternate splicing results in multiple transcript variants.

## Product Information

**Description**

NDUFA11 Knockout cell line is engineered from 293T cell line with Gene-Editing Technology.

Allele-1:61bp deletion in exon3

Allele-2:61bp deletion in exon3

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 CCTCACCACCTGCA\*\*\*\*\*CGGAGGCCTGACT  
Mut CCTCACCACCTGCA\*\*\*Deletion\*\*\*CGGAGGCCTGACT  
Allele-1: 61bp deletion in exon3

WT CCTCACCACCTGCA\*\*\*\*\*CGGAGGCCTGACT  
Mut CCTCACCACCTGCA\*\*\*Deletion\*\*\*CGGAGGCCTGACT  
Allele-2: 61bp deletion in exon3

Genome sequence analysis of PCR products from parental (WT) and NDUFA11 knockout (KO) 293T cells, using sanger sequencing.