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NDUFA11 Knockout 293T Cell Line, Homozygous

Catalog No.: RM02710

Basic Information

Catalog No.
RM02710

Category
Cell Line

Parental Cell line
293T

Genotype
Knockout

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.

Gene Information

Gene Symbol
NDUFA11

Species
Human

Gene ID
126328

Swiss Prot
Q86Y39

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

Contact

400-999-6126

cn.market@abclonal.com.cn

www.abclonal.com.cn

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
1~5x10^6 cells/vial.

Storage
Store at -20℃

Protocol
Upon arrival, it should be maintained in DMEM medium with 10%(v/v) fetal bovine serum and 100U penicillin-streptomycin, at 37℃ with 5% CO_2 condition.

1. Thaw the vial in 37℃ 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℃ incubator with 5% CO_2.
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
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Genome sequence analysis of PCR products from parental (WT) and NDUFA11 knockout (KO) 293T cells, using sanger sequencing.