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NDUFAF3 Knockout HeLa Cell Line, Homozygous

Catalog No.: RM02686

Basic Information

Catalog No.
RM02686

Category
Cell Line

Parental Cell line
HeLa

Genotype
Knockout

Gene Information

Gene Symbol
NDUFAF3

Species
Human

Gene ID
25915

Swiss Prot
Q9BU61

Synonyms
2P1; E3-3; C3orf60; MC1DN18

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Background

This gene encodes a mitochondrial complex I assembly protein that interacts with complex I subunits. Mutations in this gene cause mitochondrial complex I deficiency, a fatal neonatal disorder of the oxidative phosphorylation system. Alternatively spliced transcript variants encoding different isoforms have been identified.

Product Information

Description
NDUFAF3 Knockout cell line is engineered from HeLa cell line with Gene-Editing Technology.
Allele-1:113bp deletion in exon2
Allele-2:113bp 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
1~5x10^6 cells/vial.

Storage
Stored in liquid nitrogen for a long time less than -130℃. 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℃ 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    GCTCTCGCCGGCGG**********CTCGGCCCCTGCGC
Mut   GCTCTCGCCGGCGG***Deletion***CTCGGCCCCTGCGC
Allele-1:   113bp deletion in exon2

WT    GCTCTCGCCGGCGG**********CTCGGCCCCTGCGC
Mut   GCTCTCGCCGGCGG***Deletion***CTCGGCCCCTGCGC
Allele-2:   113bp deletion in exon2
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Genome sequence analysis of PCR products from parental (WT) and NDUFAF3 knockout (KO) HeLa cells, using sanger sequencing.