

NDUFA5 Knockout 293F Cell Line, Homozygous

Catalog No.: RM02407

Basic Information

Catalog No.

RM02407

Category

Cell Line

Parental Cell line

293F

Genotype

Knockout

Gene Information

Gene Symbol

NDUFA5

Species

Human

Gene ID

4698

Swiss Prot

Q16718

Synonyms

B13; CI-13KD-B; CI-13kB; NUFM; UQOR13

Contact

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Background

This nuclear gene encodes a conserved protein that comprises the B13 subunit of complex I of the mitochondrial respiratory chain. The encoded protein localizes to the inner mitochondrial membrane, where it is thought to aid in the transfer of electrons from NADH to ubiquinone. Alternative splicing results in multiple transcript variants. There are numerous pseudogenes of this gene on chromosomes 1, 3, 6, 8, 9, 11, 12, and 16. [provided by RefSeq, Apr 2014]

Product Information

Description

NDUFA5 Knockout 293F Cell Line knockout is engineered from 293F cell line with Gene-Editing Technology.

Allele-1:exon1 was deleted

Allele-2:exon1 was deleted

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 GGGTTGTGCGTCAC*****GGTAGGGCAGGTTA
Mut GGGTTGTGCGTCAC***Deletion***GGTAGGGCAGGTTA
Allele-1: exon1 was deleted

WT GGGTTGTGCGTCAC*****GGTAGGGCAGGTT
Mut GGGTTGTGCGTCAC***Deletion***TGGTAGGGCAGGTT
Allele-2: exon1 was deleted

Genome sequence analysis of PCR products from parental (WT) and NDUFA5 knockout (KO) 293F cells, using sanger sequencing.