

COX4I1 Knockdown 293T Cell Line, Heterozygous

Catalog No.: RM02208

Basic Information

Catalog No.

RM02208

Category

Cell Line

Parental Cell line

293T

Genotype

Knockdown

Gene Information

Gene Symbol

COX4I1

Species

Human

Gene ID

1327

Swiss Prot

P13073

Synonyms

COX IV-1; COX4; COX4-1; COXIV;
COXIV-1

Contact

 | 400-999-6126

 | cn.market@abclonal.com.cn

 | www.abclonal.com.cn

Background

Cytochrome c oxidase (COX) is the terminal enzyme of the mitochondrial respiratory chain. It is a multi-subunit enzyme complex that couples the transfer of electrons from cytochrome c to molecular oxygen and contributes to a proton electrochemical gradient across the inner mitochondrial membrane. The complex consists of 13 mitochondrial- and nuclear-encoded subunits. The mitochondrially-encoded subunits perform the electron transfer and proton pumping activities. The functions of the nuclear-encoded subunits are unknown but they may play a role in the regulation and assembly of the complex. This gene encodes the nuclear-encoded subunit IV isoform 1 of the human mitochondrial respiratory chain enzyme. It is located at the 3' of the NOC4 (neighbor of COX4) gene in a head-to-head orientation, and shares a promoter with it. Pseudogenes related to this gene are located on chromosomes 13 and 14. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jan 2016]

Product Information

Description

COX4I1 Knockdown 293T cell line is engineered from 293T cell line with Gene-Editing Technology.

Allele-1:29bp deletion and 1bp deletion in exon2

Allele-2:65bp 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 TTTTCGCTCCCAGC*****CGGAGGTGGCCCAT***CACCTGTCTGCCAGCCAGAAGGCACTGAAG
Mut TTTTCGCTCCCAGC***Deletion***CGGAGGTGGCCCAT***CACCTGTCTGCCAGC -AGAAGGCACTGAAG
Allele-1: 28bp deletion and 1bp deletion in exon2
WT TTTTCGCTCCCAGC*****AGAAGGCACTGAAG
Mut TTTTCGCTCCCAGC***Deletion***AGAAGGCACTGAAG
Allele-2: 65bp deletion in exon2

Genome sequence analysis of PCR products from parental (WT) and COX4I1 Knockdown (KD) 293T cells, using sanger sequencing.