

RMND1 Knockout NIH/3T3 Cell Line, Homozygous

Catalog No.: RM50129

Basic Information

Catalog No.

RM50129

Category

Cell Line

Parental Cell line

NIH/3T3

Genotype

Knockout

Gene Information

Gene Symbol

RMND1

Species

Mouse

Gene ID

66084

Swiss Prot

Q8CI78

Synonyms

0610042C05Rik

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Background

Predicted to be involved in positive regulation of mitochondrial translation. Predicted to act upstream of or within translation. Located in mitochondrion. Human ortholog(s) of this gene implicated in combined oxidative phosphorylation deficiency 11. Orthologous to human RMND1 (required for meiotic nuclear division 1 homolog).

Product Information

Description

RMND1 Knockout cell line is engineered from NIH/3T3 cell line with Gene-Editing Technology. Allele-1:200bp insertion and 198bp deletion in exon2

Allele-2:exon2 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 GAGCCCTTCGCT*****GATGACGTTTCT
Mut GAGCCCTTCGCT*insertion*deletion*GATGACGTTTCT
Allele-1: 200bp insertion and 198bp deletion in exon2

Genome sequence analysis of PCR products from parental (WT) and RMND1 knockout (KO) NIH/3T3 cells, using sanger sequencing.

WT GCTTGAGCCCTTCG*****ATGACGTTTCTGGT
Mut GCTTGAGCCCTTCG***Deletion***ATGACGTTTCTGGT
Allele-2: exon2 was deleted