

FXN Knockdown 293T Cell Line, Heterozygous

Catalog No.: RM01851

Basic Information

Catalog No.

RM01851

Category

Cell Line

Parental Cell line

293T

Genotype

Knockdown

Gene Information

Gene Symbol

FXN

Species

Human

Gene ID

2395

Swiss Prot

Q16595


Synonyms

CyaY; FA; FARR; FRDA; X25

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Background

This nuclear gene encodes a mitochondrial protein which belongs to the FRATAXIN family. The protein functions in regulating mitochondrial iron transport and respiration. The expansion of intronic trinucleotide repeat GAA from 8-33 repeats to >90 repeats results in Friedreich ataxia. Alternative splicing results in multiple transcript variants.

Product Information

Description

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

Allele-1:exon2 was deleted

Allele-2:WT

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.

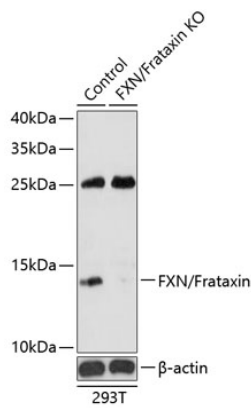
Sequencing data

WT TTGGCTTTCAG*****GTAAGATAAAA
Mut TTGGCTTTCAG***Deletion***GTAAGATAAAA
Allele-1: exon2 was deleted

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

WT TTGGCTTTCAG*****GTAAGATAAAA
Mut TTGGCTTTCAG***Deletion***GTAAGATAAAA
Allele-2: WT

WB data



Western blot analysis of extracts from parental (Control) and FXN knockdown (KD) 293T cells, using FXN antibody at 1:1000 dilution.