

FUS Knockout 293T Cell Line, Homozygous

Catalog No.: RM02236

Basic Information

Catalog No.

RM02236

Category

Cell Line

Parental Cell line

293T

Genotype

Knockout

Gene Information

Gene Symbol

FUS

Species

Human

Gene ID

2521

Swiss Prot

P35637

SynonymsALS6; ETM4; FUS1; HNRNPP2; POMP75;
TLS

Contact

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Background

This gene encodes a multifunctional protein component of the heterogeneous nuclear ribonucleoprotein (hnRNP) complex. The hnRNP complex is involved in pre-mRNA splicing and the export of fully processed mRNA to the cytoplasm. This protein belongs to the FET family of RNA-binding proteins which have been implicated in cellular processes that include regulation of gene expression, maintenance of genomic integrity and mRNA/microRNA processing. Alternative splicing results in multiple transcript variants. Defects in this gene result in amyotrophic lateral sclerosis type 6. [provided by RefSeq, Sep 2009]

Product Information

Description

FUS Knockout cell line is engineered from 293T cell line with Gene-Editing Technology.

Allele-1:1bp insertion and 6bp deletion in exon3

Allele-2:46bp deletion in exon3

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

Amount1~5x10⁶ 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 AGTCAGCCCTACGG - ACAGCAGAGTTACA***CGGACACTTCAGGCTATGGCCAGAGCAGCTATTTC
Mut AGTCAGCCCTACGGGACAGCAGAGTTACA***CGGACACTTCAGGC- - - - -CAGAGCAGCTATTTC
Allele-1: 1bp insertion and 6bp deletion in exon3
WT AGTCAGCCCTACGG*****TATGGCCAGAGCAG
Mut AGTCAGCCCTACGA***Deletion***TATGGCCAGAGCAG
Allele-2: 46bp deletion in exon3

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