

GARS Knockdown 293T Cell Line, Heterozygous

Catalog No.: RM02119

Basic Information

Catalog No.

RM02119

Category

Cell Line

Parental Cell line

293T

Genotype

Knockdown

Gene Information

Gene Symbol

GARS

Species

Human

Gene ID

2617

Swiss Prot

P41250

Synonyms

CMT2D; DSMAV; GlyRS; HMN5; SMAD1

Contact

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Background

This gene encodes glycyl-tRNA synthetase, one of the aminoacyl-tRNA synthetases that charge tRNAs with their cognate amino acids. The encoded enzyme is an (alpha)₂ dimer which belongs to the class II family of tRNA synthetases. It has been shown to be a target of autoantibodies in the human autoimmune diseases, polymyositis or dermatomyositis. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2015]

Product Information

Description

GARS Knockdown 293T Cell Line is engineered from 293T cell line with Gene-Editing Technology.

Allele-1:96bp deletion in exon1

Allele-2:97bp deletion in exon1

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 CTGCCGCCCGGCT*****GGCGCGGGGGCTGA
Mut CTGCCGCCCGGCT***Deletion***GGCGCGGGGGCTGA
Allele-1: 96bp deletion in exon1
WT TGCCGCCCGGCTC*****GGCGCGGGGGCTGA
Mut TGCCGCCCGGCTC***Deletion***GGCGCGGGGGCTGA
Allele-2: 97bp deletion in exon1

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