

CSF3R Knockout 293T Cell Line, Homozygous

Catalog No.: RM02721

Basic Information

Catalog No.

RM02721

Category

Cell Line

Parental Cell line

293T

Genotype

Knockout

Gene Information

Gene Symbol

CSF3R

Species

Human

Gene ID

1441

Swiss Prot

Q99062

Synonyms

SCN7; CD114; GCSFR; CSF3R

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Background

The protein encoded by this gene is the receptor for colony stimulating factor 3, a cytokine that controls the production, differentiation, and function of granulocytes. The encoded protein, which is a member of the family of cytokine receptors, may also function in some cell surface adhesion or recognition processes. Alternatively spliced transcript variants have been described. Mutations in this gene are a cause of Kostmann syndrome, also known as severe congenital neutropenia.

Product Information

Description

CSF3R Knockout cell line is engineered from 293T cell line with Gene-Editing Technology.

Allele-1:46bp deletion in exon1

Allele-2:46bp 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 GGACTGCGTGC*****GTTGTACCAGA
Mut GGACTGCGTGC***Deletion(46bp)***GTTGTACCAGA
Allele-1: 46bp deletion in exon4

Genome sequence analysis of PCR products from parental (WT) and CSF3R knockout (KO) 293T cells, using sanger sequencing.

WT GGACTGCGTGC*****GTTGTACCAGA
Mut GGACTGCGTGC***Deletion(46bp)***GTTGTACCAGA
Allele-2: 46bp deletion in exon4