

RARA Knockout 293T Cell Line, Homozygous

Catalog No.: RM50127

Basic Information

Catalog No.

RM50127

Category

Cell Line

Parental Cell line

293T

Genotype

Knockout

Gene Information

Gene Symbol

RARA

Species

Human

Gene ID

5914

Swiss Prot

P10276

Synonyms

RAR; NR1B1; RARalpha; RAR α

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Background

This gene represents a nuclear retinoic acid receptor. The encoded protein, retinoic acid receptor alpha, regulates transcription in a ligand-dependent manner. This gene has been implicated in regulation of development, differentiation, apoptosis, granulopoiesis, and transcription of clock genes. Translocations between this locus and several other loci have been associated with acute promyelocytic leukemia. Alternatively spliced transcript variants have been found for this locus.

Product Information

Description

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

Allele-1:70bp deletion in exon1

Allele-2:70bp 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 CTACACGCTGACGC*****GGGCAAATACACTA
Mut CTACACGCTGACGC***Deletion***GGGCAAATACACTA
Allele-1: 70bp deletion in exon1

WT CTACACGCTGACGC*****GGGCAAATACACTA
Mut CTACACGCTGACGC***Deletion***GGGCAAATACACTA
Allele-2: 70bp deletion in exon1

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