

POR Knockout 293T Cell Line, Homozygous

Catalog No.: RM02454

Basic Information

Catalog No.

RM02454

Category

Cell Line

Parental Cell line

293T

Genotype

Knockout

Gene Information

Gene Symbol

POR

Species

Human

Gene ID

5447

Swiss Prot

P16435

Synonyms

CPR; CYPOR; P450R

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Background

This gene encodes an endoplasmic reticulum membrane oxidoreductase with an FAD-binding domain and a flavodoxin-like domain. The protein binds two cofactors, FAD and FMN, which allow it to donate electrons directly from NADPH to all microsomal P450 enzymes. Mutations in this gene have been associated with various diseases, including apparent combined P450C17 and P450C21 deficiency, amenorrhea and disordered steroidogenesis, congenital adrenal hyperplasia and Antley-Bixler syndrome. [provided by RefSeq, Jul 2008]

Product Information

Description

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

Allele-1:73bp deletion in exon1

Allele-2:73bp 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 ACCGTGTCCGAGGC*****TACTGGTTCCTTT
Mut ACCGTGTCCGAGGC***Deletion***TACTGGTTCCTTT
Allele-1: 73bp deletion in exon1

WT ACCGTGTCCGAGGC*****TACTGGTTCCTTT
Mut ACCGTGTCCGAGGC***Deletion***TACTGGTTCCTTT
Allele-2: 73bp deletion in exon1

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