

CYP11A1 Knockdown HeLa Cell Line, Heterozygous

Catalog No.: RM01863

Basic Information

Catalog No.

RM01863

Category

Cell Line

Parental Cell line

HeLa

Genotype

Knockdown

Gene Information

Gene Symbol

CYP11A1

Species

Human

Gene ID

1583

Swiss Prot

P05108

Synonyms

CYP11A; CYPXIA1; P450SCC

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Background

This gene encodes a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases which catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. This protein localizes to the mitochondrial inner membrane and catalyzes the conversion of cholesterol to pregnenolone, the first and rate-limiting step in the synthesis of the steroid hormones. Two transcript variants encoding different isoforms have been found for this gene. The cellular location of the smaller isoform is unclear since it lacks the mitochondrial-targeting transit peptide. [provided by RefSeq, Jul 2008]

Product Information

Description

CYP11A1 Knockdown HeLa Cell Line is engineered from HeLa cell line with Gene-Editing Technology.

Allele-1:69bp deletion in exon2

Allele-2:70bp deletion in exon2

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 CCGAGGCCAGCG*****CCGTCTGTTAGGA
Mut CCGAGGCCAGCG***Deletion***CCGTCTGTTAGGA
Allele-1: 69bp deletion in exon2
WT CCGAGGCCAGCG*****CGTCTGTTAGGAC
Mut CCGAGGCCAGCG***Deletion***CGTCTGTTAGGAC
Allele-2: 70bp deletion in exon2

Genome sequence analysis of PCR products from parental (WT) and CYP11A1 Knockdown (KD) HeLa cells, using sanger sequencing.