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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

Contact

400-999-6126

cn.market@abclonal.com.cn

www.abclonal.com.cn

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
1~5x10^6 cells/vial

Storage
Stored in liquid nitrogen for a long time less than -130℃. 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℃ with 5% CO_2 condition.
1. Thaw the vial in 37℃ 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℃ incubator with 5% CO_2.
7. A subcultivation ratio of 1:2-1:4 is recommended.

Sequencing data

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WT     CCCGAGGCCCAGCG**************CCGTCTGTTCAGGA
Mut    CCCGAGGCCCAGCG***Deletion***CCGTCTGTTCAGGA
Allele-1：69bp deletion in exon2

WT     CCCGAGGCCCAGCG**************CGTCTGTTCAGGAC
Mut    CCCGAGGCCCAGCG***Deletion***CGTCTGTTCAGGAC
Allele-2：70bp deletion in exon2
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Genome sequence analysis of PCR products from parental (WT) and CYP11A1 Knockdown (KD) HeLa cells, using sanger sequencing.