

ABCC4 Knockout 293T Cell Line, Homozygous

Catalog No.: RM50121

Basic Information

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RM50121

Category
Cell Line

Parental Cell line
293T

Genotype
Knockout

Gene Information

Gene Symbol
ABCC4

Species
Human

Gene ID
10257

Swiss Prot
O15439

Synonyms
MRP4; MOATB; MOAT-B; MRP4/ABCC4

Contact

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Background

The protein encoded by this gene is a member of the superfamily of ATP-binding cassette (ABC) transporters. ABC proteins transport various molecules across extra- and intra-cellular membranes. ABC genes are divided into seven distinct subfamilies (ABC1, MDR/TAP, MRP, ALD, OABP, GCN20, White). This protein is a member of the MRP subfamily which is involved in multi-drug resistance. This family member plays a role in cellular detoxification as a pump for its substrate, organic anions. It may also function in prostaglandin-mediated cAMP signaling in ciliogenesis. Alternative splicing of this gene results in multiple transcript variants.

Product Information

Description

ABCC4 Knockout cell line is engineered from 293T cell line with Gene-Editing Technology.

Allele-1:19bp deletion in exon2

Allele-2:2bp 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 CTGCCAGAAGACCG*****GAGTTGCAAGGGTA
Mut CTGCCAGAAGACCG***Deletion***GAGTTGCAAGGGTA
Allele-1: 19bp deletion in exon2

WT AGACCGCTCACAGC*****CTTGGAGAGGAGTT
Mut AGACCGCTCACAGC***Deletion***CTTGGAGAGGAGTT
Allele-2: 2bp deletion in exon2

Genome sequence analysis of PCR products from parental (WT) and ABCC4 knockout (KO) 293T cells, using sanger sequencing.