

POLB Knockout 293T Cell Line, Homozygous

Catalog No.: RM02502

Basic Information

Catalog No.

RM02502

Category

Cell Line

Parental Cell line

293T

Genotype

Knockout

Gene Information

Gene Symbol

POLB

Species

Human

Gene ID

5423

Swiss Prot

P06746

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Background

The protein encoded by this gene is a DNA polymerase involved in base excision and repair, also called gap-filling DNA synthesis. The encoded protein, acting as a monomer, is normally found in the cytoplasm, but it translocates to the nucleus upon DNA damage. Several transcript variants of this gene exist, but the full-length nature of only one has been described to date. [provided by RefSeq, Sep 2011]

Product Information

Description

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

Allele-1:13bp deletion in exon2

Allele-2:36bp deletion in exon1 and exon2 was deleted

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 AGCTATCCACAAGT*****GGGACAGTGCAGCA
Mut AGCTATCCACAAGT***Deletion***GGGACAGTGCAGCA
Allele-1: 13bp deletion in exon2

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

WT GAAGGCGCCG CAGG*****GACAGTGCAGCATT
Mut GAAGGCGCCG CAGG***Deletion***GACAGTGCAGCATT
Allele-2: 36bp deletion in exon1 and exon2 was deleted