

# RELA Knockout HeLa Cell Line, Homozygous

Catalog No.: RM02085

## Basic Information

**Catalog No.**

RM02085

**Category**

Cell Line

**Parental Cell line**

HeLa

**Genotype**

Knockout

## Gene Information

**Gene Symbol**

RELA

**Species**

Human

**Gene ID**

5970


**Swiss Prot**

Q04206

**Synonyms**

NFKB3; p65

## Contact

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## Background

NF-kappa-B is a ubiquitous transcription factor involved in several biological processes. It is held in the cytoplasm in an inactive state by specific inhibitors. Upon degradation of the inhibitor, NF-kappa-B moves to the nucleus and activates transcription of specific genes. NF-kappa-B is composed of NFKB1 or NFKB2 bound to either REL, RELA, or RELB. The most abundant form of NF-kappa-B is NFKB1 complexed with the product of this gene, RELA. Four transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2011]

## Product Information

**Description**

RELA Knockout HeLa Cell Line is engineered from HeLa cell line with Gene-Editing Technology.

Allele-1:1bp insertion in exon3

Allele-2:2bp deletion in exon3

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<sup>6</sup> 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% CO<sub>2</sub> 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% CO<sub>2</sub>.
7. A subcultivation ratio of 1:2-1:4 is recommended.

## Sequencing data

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WT CCAGGCCTCTGGCCCTAT-GTGGAGATCATTGAGCAGC  
Mut CCAGGCCTCTGGCCCTATGTGGAGATCATTGAGCAGC  
Allele-1: 1bp insertion in exon3  
WT GCCTCTGGCCCTA\*\*\*\*\*TGGAGATCATTGAG  
Mut GCCTCTGGCCCTA\*\*\*Deletion\*\*\*TGGAGATCATTGAG  
Allele-2: 2bp deletion in exon3

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