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RELA Knockout HeLa Cell Line, Homozygous

Catalog No.: RM01765

Basic Information

Catalog No.
RM01765

Category
Cell Line

Parental Cell line
HeLa

Genotype
Knockout

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.

Gene Information

Gene Symbol
RELA

Species
Human

Gene ID
5970

Swiss Prot
Q04206

Synonyms
NFKB3; p65

Product Information

Description
HeLa cells possess hypertriploid (3n +) karyotype.We obtained monoclonal homozygotes by gene editing technology.
Shows the number of effective mutations
Allele-1: 73bp deletion in exon3
Allele-2: 17bp deletion in exon3
Allele-3:exon3 was destroyed
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.

Contact

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Sequencing data

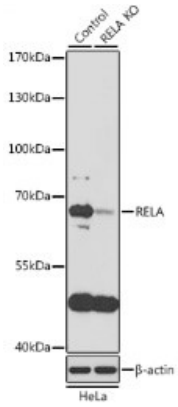
WT GCCCCCGCGGC**********CAAGTGCGAGG
Mut GCCCCCGCGGC**Deletion(145bp)***CAAGTGCGAGG
Allele-1: 73 bp deletion in exon3

WT CGCTTCCGCTA**********CGCGGGCAGCA
Mut CGCTTCCGCTA***Deletion(17bp)***CGCGGGCAGCA
Allele-2: 17 bp deletion in exon3

WT CGCTTCCGCTA**********GTGCGAGGGGC
Mut CGCTTCCGCTA***Mutation***GTGCGAGGGGC
Allele-3: exon3 was destroyed

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

WB data



Western blot analysis of extracts from parental (Control) and RELA knockout (KO) HeLa cells, using RELA antibody (A11201) at 1:1000 dilution.