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NFKB1 Knockout 293T Cell Line, Homozygous

Catalog No.: RM02156

Basic Information

Catalog No.
RM02156

Category
Cell Line

Parental Cell line
293T

Genotype
Knockout

Gene Information

Gene Symbol
NFKB1

Species
Human

Gene ID
4790

Swiss Prot
P19838

Synonyms
CVID12; EBP-1; KBF1; NF-kB1; NF-kappa-B; NF-kappaB; NFKB-p105; NFKB-p50; NFkappaB; p105; p50

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Background

This gene encodes a 105 kD protein which can undergo cotranslational processing by the 26S proteasome to produce a 50 kD protein. The 105 kD protein is a Rel protein-specific transcription inhibitor and the 50 kD protein is a DNA binding subunit of the NF-kappa-B (NFKB) protein complex. NFKB is a transcription regulator that is activated by various intra- and extra-cellular stimuli such as cytokines, oxidant-free radicals, ultraviolet irradiation, and bacterial or viral products. Activated NFKB translocates into the nucleus and stimulates the expression of genes involved in a wide variety of biological functions. Inappropriate activation of NFKB has been associated with a number of inflammatory diseases while persistent inhibition of NFKB leads to inappropriate immune cell development or delayed cell growth. Alternative splicing results in multiple transcript variants encoding different isoforms, at least one of which is proteolytically processed. [provided by RefSeq, Feb 2016]

Product Information

Description
NFKB1 Knockout 293T Cell Line is engineered from 293T cell line with Gene-Editing Technology.
Allele-1:100bp deletion in exon5
Allele-2:100bp deletion in exon5
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
Store at -20℃

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     CTATGTGGGACCAG***************TGCTGGACCCAAGG
Mut    CTATGTGGGACCAG***Deletion***TGCTGGACCCAAGG
Allele-1：100bp deletion in exon5

WT     CTATGTGGGACCAG***************TGCTGGACCCAAGG
Mut    CTATGTGGGACCAG***Deletion***TGCTGGACCCAAGG
Allele-2：100bp deletion in exon5
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Genome sequence analysis of PCR products from parental (WT) and NFKB1 knockout (KO) 293T cells, using sanger sequencing.