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DDIT3 Knockout HeLa Cell Line, Homozygous

Catalog No.: RM50200

Basic Information

Catalog No.
RM50200

Category
Cell Line

Parental Cell line
HeLa

Genotype
Knockout

Gene Information

Gene Symbol
DDIT3

Species
Human

Gene ID
1649

Swiss Prot
P35638

Synonyms
CEBPZ; CHOP; CHOP-10; CHOP10; GADD153

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Background

This gene encodes a member of the CCAAT/enhancer-binding protein (C/EBP) family of transcription factors. The protein functions as a dominant-negative inhibitor by forming heterodimers with other C/EBP members, such as C/EBP and LAP (liver activator protein), and preventing their DNA binding activity. The protein is implicated in adipogenesis and erythropoiesis, is activated by endoplasmic reticulum stress, and promotes apoptosis. Fusion of this gene and FUS on chromosome 16 or EWSR1 on chromosome 22 induced by translocation generates chimeric proteins in myxoid liposarcomas or Ewing sarcoma. Multiple alternatively spliced transcript variants encoding two isoforms with different length have been identified.

Product Information

Description
DDIT3 Knockout cell line is engineered from HeLa cell line with Gene-Editing Technology.
Allele-1:1bp deletion in exon2
Allele-2:1bp 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
1~5x10^6 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.

Sequencing data

WT GGAGCCAGAACCAGCAGAGGTCA
Mut GGAGCCAGAAC*AGCAGAGGTCA
AIIele-1: 1bp deletion in exon2

WT GGAGCCAGAACCAGCAGAGGTCA
Mut GGAGCCAGAAC*AGCAGAGGTCA
AIIele-2: 1bp deletion in exon2

Genome sequence analysis of PCR products from parental (WT) and DDIT3 knockout (KO) HeLa cells, using sanger sequencing.