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CCND3 Knockout HeLa Cell Line, Homozygous

Catalog No.: RM02220

Basic Information

Catalog No.
RM02220

Category
Cell Line

Parental Cell line
HeLa

Genotype
Knockout

Background

The protein encoded by this gene belongs to the highly conserved cyclin family, whose members are characterized by a dramatic periodicity in protein abundance through the cell cycle. Cyclins function as regulators of CDK kinases. Different cyclins exhibit distinct expression and degradation patterns which contribute to the temporal coordination of each mitotic event. This cyclin forms a complex with and functions as a regulatory subunit of CDK4 or CDK6, whose activtiy is required for cell cycle G1/S transition. This protein has been shown to interact with and be involved in the phosphorylation of tumor suppressor protein Rb. The CDK4 activity associated with this cyclin was reported to be necessary for cell cycle progression through G2 phase into mitosis after UV radiation. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2008]

Gene Information

Gene Symbol
CCND3

Species
Human

Gene ID
896

Swiss Prot
P30281

Product Information

Description
CCND3 Knockout cell line is engineered from HeLa cell line with Gene-Editing Technology.
Allele-1:86bp deletion in exon2
Allele-2:86bp 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.

Contact

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Sequencing data

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WT    GGAGGTGCTGGTCC**************CGACAGGCCTTGGT
Mut   GGAGGTGCTGGTCC***Deletion***CGACAGGCCTTGGT
Allele-1：86bp deletion in exon2

WT    GGAGGTGCTGGTCC**************CGACAGGCCTTGGT
Mut   GGAGGTGCTGGTCC***Deletion***CGACAGGCCTTGGT
Allele-2：86bp deletion in exon2
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Genome sequence analysis of PCR products from parental (WT) and CCND3 knockout (KO) HeLa cells, using sanger sequencing.