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CDK6 Knockout HeLa Cell Line, Homozygous

Catalog No.: RM01912

Basic Information

Catalog No.
RM01912

Category
Cell Line

Parental Cell line
HeLa

Genotype
Knockout

Background

The protein encoded by this gene is a member of the cyclin-dependent protein kinase (CDK) family. CDK family members are highly similar to the gene products of Saccharomyces cerevisiae cdc28, and Schizosaccharomyces pombe cdc2, and are known to be important regulators of cell cycle progression. This kinase is a catalytic subunit of the protein kinase complex that is important for cell cycle G1 phase progression and G1/S transition. The activity of this kinase first appears in mid-G1 phase, which is controlled by the regulatory subunits including D-type cyclins and members of INK4 family of CDK inhibitors. This kinase, as well as CDK4, has been shown to phosphorylate, and thus regulate the activity of, tumor suppressor protein Rb. Expression of this gene is up-regulated in some types of cancer. Multiple alternatively spliced variants, encoding the same protein, have been identified. [provided by RefSeq, Nov 2009]

Gene Information

Gene Symbol
CDK6

Species
Human

Gene ID
1021

Swiss Prot
Q00534

Synonyms
MCPH12; PLSTIRE

Product Information

Description
CDK6 Knockout HeLa Cell Line is engineered from HeLa cell line with Gene-Editing Technology.
Allele-1:exon2 was deleted
Allele-2:exon2 was deleted
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.

Contact

400-999-6126

cn.market@abclonal.com.cn

www.abclonal.com.cn

Sequencing data

```
WT     ATATGTATAAAACA**************ATCAGGCAGTCGAC
Mut    ATATGTATAAAACA***Deletion***ATCAGGCAGTCGAC
Allele-1：exon2 was deleted

WT     ATATGTATAAAACA**************ATCAGGCAGTCGAC
Mut    ATATGTATAAAACA***Deletion***ATCAGGCAGTCGAC
Allele-2：exon2 was deleted
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Genome sequence analysis of PCR products from parental (WT) and CDK6 knockout (KO) HeLa cells, using sanger sequencing.