

RB1 Knockout HeLa Cell Line, Homozygous

Catalog No.: RM01951

Basic Information

Catalog No.

RM01951

Category

Cell Line

Parental Cell line

HeLa

Genotype

Knockout

Gene Information

Gene Symbol

RB1

Species

Human

Gene ID

5925

Swiss Prot

P06400

Synonyms

OSRC; PPP1R130; RB; p105-Rb; pRb; pp110

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Background

The protein encoded by this gene is a negative regulator of the cell cycle and was the first tumor suppressor gene found. The encoded protein also stabilizes constitutive heterochromatin to maintain the overall chromatin structure. The active, hypophosphorylated form of the protein binds transcription factor E2F1. Defects in this gene are a cause of childhood cancer retinoblastoma (RB), bladder cancer, and osteogenic sarcoma. [provided by RefSeq, Jul 2008]

Product Information

Description

RB1 Knockout HeLa Cell Line is engineered from HeLa cell line with Gene-Editing Technology.

Allele-1:exon1 was deleted

Allele-2:exon1 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

1~5x10⁶ cells/vial

Storage

Stored in liquid nitrogen for a long time less than -130°C. 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°C with 5% CO₂ condition.

1. Thaw the vial in 37°C 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°C incubator with 5% CO₂.
7. A subcultivation ratio of 1:2-1:4 is recommended.

Sequencing data

WT GCTCGCTGGCTCCC*****ACGCGGGAAGGGCG
Mut GCTCGCTGGCTCCC***Deletion***ACGCGGGAAGGGCG
Allele-1: exon1 was deleted
WT GCTCGCTGGCTCCC*****ACGCGGGAAGGGCG
Mut GCTCGCTGGCTCCC***Deletion***ACGCGGGAAGGGCG
Allele-2: exon1 was deleted

Genome sequence analysis of PCR products from parental (WT) and RB1 knockout (KO) HeLa cells, using sanger sequencing.