

PARP1 Knockout HeLa Cell Line, Homozygous

Catalog No.: RM01824

Basic Information

Catalog No.

RM01824

Category

Cell Line

Parental Cell line

HeLa

Genotype

Knockout

Gene Information

Gene Symbol

PARP1

Species

Human

Gene ID


142

Swiss Prot

P09874

SynonymsADPRT; ADPRT 1; ADPRT1; ARTD1; PARP;
PARP-1; PPOL; pADPRT-1

Contact

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Background

This gene encodes a chromatin-associated enzyme, poly(ADP-ribose)transferase, which modifies various nuclear proteins by poly(ADP-ribose)ation. The modification is dependent on DNA and is involved in the regulation of various important cellular processes such as differentiation, proliferation, and tumor transformation and also in the regulation of the molecular events involved in the recovery of cell from DNA damage. In addition, this enzyme may be the site of mutation in Fanconi anemia, and may participate in the pathophysiology of type I diabetes.

Product Information

Description

PARP1 Knockout 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

1~5x10⁶ 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.

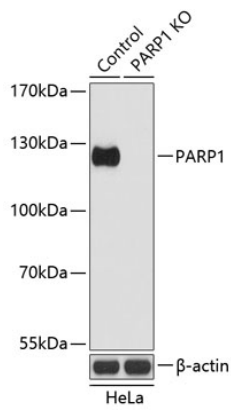
1. Thaw the vial in 37°C water bath, and shake it to melt as soon as possible.
2. Transfer the cell suspension to a 15mL conical tube with pre-warmed 5mL complete medium and centrifuge 1000rpm for approximately 5 minutes at room temperature.
3. Remove and discard the supernatant.
4. Resuspend the cell 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 TTCTCTCCTTCTA*****TACTGGGGCAGCAT
Mut TTCTCTCCTTCTA***Deletion***TACTGGGGCAGCAT
Allele-1: exon2 was deleted
WT TTCTCTCCTTCTA*****TACTGGGGCAGCAT
Mut TTCTCTCCTTCTA***Deletion***TACTGGGGCAGCAT
Allele-2: exon2 was deleted

Genome sequence analysis of PCR products from parental (WT) and PARP1 knockout (KO) HeLa cells, using sanger sequencing.

WB data



Western blot analysis of extracts from parental (Control) and PARP1 knockout (KO) HeLa cells, using PARP1 antibody at 1:1000 dilution.