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APEX1 Knockout HeLa Cell Line, Homozygous

Catalog No.: RM02223

Basic Information

Catalog No.
RM02223

Category
Cell Line

Parental Cell line
HeLa

Genotype
Knockout

Background

Apurinic/apyrimidinic (AP) sites occur frequently in DNA molecules by spontaneous hydrolysis, by DNA damaging agents or by DNA glycosylases that remove specific abnormal bases. AP sites are pre-mutagenic lesions that can prevent normal DNA replication so the cell contains systems to identify and repair such sites. Class II AP endonucleases cleave the phosphodiester backbone 5' to the AP site. This gene encodes the major AP endonuclease in human cells. Splice variants have been found for this gene; all encode the same protein. [provided by RefSeq, Jul 2008]

Gene Information

Gene Symbol
APEX1

Species
Human

Gene ID
328

Swiss Prot
P27695

Synonyms
APE; APE1; APEN; APEX; APX; HAP1; REF1

Product Information

Description
APEX1 Knockout 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
1~5x10^6 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

400-999-6126

cn.market@abclonal.com.cn

www.abclonal.com.cn

Sequencing data

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WT    CCCAAGGGCGTTCG**************ATGTACGGTAAGTA
Mut   CCCAAGGGCGTTCG***Deletion***ATGTACGGTAAGTA
Allele-1: exon1 was deleted

WT    CCCAAGGGCGTTCG**************ATGTACGGTAAGTA
Mut   CCCAAGGGCGTTCG***Deletion***ATGTACGGTAAGTA
Allele-2: exon1 was deleted
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Genome sequence analysis of PCR products from parental (WT) and APEX1 knockout (KO) HeLa cells, using sanger sequencing.