

MSH2 Knockout HeLa Cell Line, Homozygous

Catalog No.: RM02420

Basic Information

Catalog No.

RM02420

Category

Cell Line

Parental Cell line

HeLa

Genotype

Knockout

Gene Information

Gene Symbol

MSH2

Species

Human

Gene ID

4436

Swiss Prot

P43246

Synonyms

COCA1; FCC1; HNPCC; HNPCC1; LCFS2

Contact

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Background

This locus is frequently mutated in hereditary nonpolyposis colon cancer (HNPCC). When cloned, it was discovered to be a human homolog of the E. coli mismatch repair gene mutS, consistent with the characteristic alterations in microsatellite sequences (RER+ phenotype) found in HNPCC. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Apr 2012]

Product Information

Description

MSH2 Knockout HeLa Cell Line knockout is engineered from HeLa cell line with Gene-Editing Technology.

Allele-1:67bp deletion in exon3

Allele-2:68bp deletion in exon3

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 AGCTTCATTGGT*****ACAGAGGAACTAG
Mut AGCTTCATTGGT***Deletion***ACAGAGGAACTAG
Allele-1: 67bp deletion in exon3
WT AGCTTCATTGGT*****CAGAGGAACTAGG
Mut AGCTTCATTGGT***Deletion***CAGAGGAACTAGG
Allele-2: 68bp deletion in exon3

Genome sequence analysis of PCR products from parental (WT) and MSH2 knockout (KO) HeLa cells, using sanger sequencing.