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MSH6 Knockout 293T Cell Line, Homozygous

Catalog No.: RM02427

Basic Information

Catalog No.
RM02427

Category
Cell Line

Parental Cell line
293T

Genotype
Knockout

Background

This gene encodes a member of the DNA mismatch repair MutS family. In E. coli, the MutS protein helps in the recognition of mismatched nucleotides prior to their repair. A highly conserved region of approximately 150 aa, called the Walker-A adenine nucleotide binding motif, exists in MutS homologs. The encoded protein heterodimerizes with MSH2 to form a mismatch recognition complex that functions as a bidirectional molecular switch that exchanges ADP and ATP as DNA mismatches are bound and dissociated. Mutations in this gene may be associated with hereditary nonpolyposis colon cancer, colorectal cancer, and endometrial cancer. Transcripts variants encoding different isoforms have been described. [provided by RefSeq, Jul 2013]

Gene Information

Gene Symbol
MSH6

Species
Human

Gene ID
2956

Swiss Prot
P52701

Synonyms
GTBP; GTMBP; HNPCC5; HSAP; p160

Product Information

Description
MSH6 Knockout 293T Cell line is engineered from 293T cell line with Gene-Editing Technology.
Allele-1:106bp deletion in exon4
Allele-2:106bp deletion in exon4
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

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Sequencing data

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WT     TCCCAAGCCCACGT**************CACCCCGATTTTGA
Mut    TCCCAAGCCCACGT***Deletion***CACCCCGATTTTGA
Allele-1：106bp deletion  in exon4

WT     TCCCAAGCCCACGT**************CACCCCGATTTTGA
Mut    TCCCAAGCCCACGT***Deletion***CACCCCGATTTTGA
Allele-2：106bp deletion  in exon4
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Genome sequence analysis of PCR products from parental (WT) and MSH6 knockout (KO) 293T cells, using sanger sequencing.