

MUC4 Knockout HeLa Cell Line, Homozygous

Catalog No.: RM02587

Basic Information

Catalog No.

RM02587

Category

Cell Line

Parental Cell line

HeLa

Genotype

Knockout

Gene Information

Gene Symbol

MUC4

Species

Human

Gene ID

4585

Swiss Prot

Q99102

Synonyms

ASGP; HSA276359; MUC-4

Contact

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Background

The major constituents of mucus, the viscous secretion that covers epithelial surfaces such as those in the trachea, colon, and cervix, are highly glycosylated proteins called mucins. These glycoproteins play important roles in the protection of the epithelial cells and have been implicated in epithelial renewal and differentiation. This gene encodes an integral membrane glycoprotein found on the cell surface, although secreted isoforms may exist. At least two dozen transcript variants of this gene have been found, although for many of them the full-length transcript has not been determined or they are found only in tumor tissues. This gene contains a region in the coding sequence which has a variable number (>100) of 48 nt tandem repeats. [provided by RefSeq, Jul 2008]

Product Information

Description

MUC4 Knockout HeLa Cell Line is engineered from HeLa cell line with Gene-Editing technology.

Allele-1:44bp deletion in exon3

Allele-2:43bp 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 GGGACCTGGAGTTC*****GACTGGCTTCCCC
Mut GGGACCTGGAGTTC***Deletion***GACTGGCTTCCCC
Allele-1: 44bp deletion in exon3

Genome sequence analysis of PCR products from parental (WT) and MUC4 knockout (KO) HeLa cells, using sanger sequencing.

WT GGGACCTGGAGTTC*****CGACTGGCTTCCCC
Mut GGGACCTGGAGTTC***Deletion***CGACTGGCTTCCCC
Allele-2: 43bp deletion in exon3