

CEA Knockdown HeLa Cell Line, Heterozygous

Catalog No.: RM02543

Basic Information

Catalog No.

RM02543

Category

Cell Line

Parental Cell line

HeLa

Genotype

Knockdown

Gene Information

Gene Symbol

CEA

Species

Human

Gene ID

1048

Swiss Prot

P06731

Synonyms

CD66e; CEA

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Background

This gene encodes a cell surface glycoprotein that represents the founding member of the carcinoembryonic antigen (CEA) family of proteins. The encoded protein is used as a clinical biomarker for gastrointestinal cancers and may promote tumor development through its role as a cell adhesion molecule. Additionally, the encoded protein may regulate differentiation, apoptosis, and cell polarity. This gene is present in a CEA family gene cluster on chromosome 19. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2015]

Product Information

Description

CEA Knockdown HeLa Cell Line is engineered from HeLa cell line with Gene-Editing technology.

Allele-1:exon1 was deleted

Allele-2:WT

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 TTCCTGGAAGTCAA*****CCTGGGAGAGGGTG
Mut TTCCTGGAAGTCAA***Deletion***CCTGGGAGAGGGTG
Allele-1: exon1 was deleted

WT TTCCTGGAAGTCAA*****CCTGGGAGAGGGTG
Mut TTCCTGGAAGTCAA*****CCTGGGAGAGGGTG
Allele-2: WT

Genome sequence analysis of PCR products from parental (WT) and CEA Knockdown (KD) HeLa cells, using sanger sequencing.