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EGFR Knockdown HeLa Cell Line, Heterozygous

Catalog No.: RM50114

Basic Information

Catalog No.
RM50114

Category
Cell Line

Parental Cell line
HeLa

Genotype
Knockdown

Gene Information

Gene Symbol
EGFR

Species
Human

Gene ID
1956

Swiss Prot
P00533

Synonyms
ERBB; ERRP; HER1; mENA; ERBB1; PIG61; NISBD2; EGFR

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Background

The protein encoded by this gene is a transmembrane glycoprotein that is a member of the protein kinase superfamily. This protein is a receptor for members of the epidermal growth factor family. EGFR is a cell surface protein that binds to epidermal growth factor, thus inducing receptor dimerization and tyrosine autophosphorylation leading to cell proliferation. Mutations in this gene are associated with lung cancer. EGFR is a component of the cytokine storm which contributes to a severe form of Coronavirus Disease 2019 (COVID-19) resulting from infection with severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2).

Product Information

Description
EGFR Knockdown cell line is engineered from HeLa cell line with Gene-Editing Technology.
Allele-1:96bp deletion in exon3
Allele-2:97bp 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
1~5x10^6 cells/vial.

Storage
Store at -20℃

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.

Sequencing data

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WT     AGTGGAGCGAATTC*************TGAAGGAGCTGCCC
Mut    AGTGGAGCGAATTC***Deletion***TGAAGGAGCTGCCC
Allele-1:   96bp deletion in exon3

WT     CAGTGGAGCGAATT*************TGAAGGAGCTGCCC
Mut    CAGTGGAGCGAATT***Deletion***TGAAGGAGCTGCCC
Allele-2:   97bp deletion in exon3
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Genome sequence analysis of PCR products from parental (WT) and EGFR knockdown (KD) HeLa cells, using sanger sequencing.