

KDR Knockout HeLa Cell Line, Homozygous

Catalog No.: RM01892

Basic Information

Catalog No.

RM01892

Category

Cell Line

Parental Cell line

HeLa

Genotype

Knockout

Gene Information

Gene Symbol

KDR

Species

Human

Gene ID

3791

Swiss Prot

P35968

Synonyms

CD309; FLK1; VEGFR; VEGFR2

Contact

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Background

Vascular endothelial growth factor (VEGF) is a major growth factor for endothelial cells. This gene encodes one of the two receptors of the VEGF. This receptor, known as kinase insert domain receptor, is a type III receptor tyrosine kinase. It functions as the main mediator of VEGF-induced endothelial proliferation, survival, migration, tubular morphogenesis and sprouting. The signalling and trafficking of this receptor are regulated by multiple factors, including Rab GTPase, P2Y purine nucleotide receptor, integrin alphaVbeta3, T-cell protein tyrosine phosphatase, etc.. Mutations of this gene are implicated in infantile capillary hemangiomas. [provided by RefSeq, May 2009]

Product Information

Description

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

Allele-1:1bp deletion in exon3

Allele-2:1bp 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 GTGGAGGTGACTGAGTGCAGCGATGGCCTCTTCTGTAA
Mut GTGGAGGTGACTGAGTGCA -CGATGGCCTCTTCTGTAA
Allele-1: 1bp deletion in exon3

WT GTGGAGGTGACTGAGTGCAGCGATGGCCTCTTCTGTAA
Mut GTGGAGGTGACTGAGTGCA -CGATGGCCTCTTCTGTAA
Allele-2: 1bp deletion in exon3

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