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ACTA2 Knockout HeLa Cell Line, Homozygous

Catalog No.: RM01844

Basic Information

Catalog No.
RM01844

Category
Cell Line

Parental Cell line
HeLa

Genotype
Knockout

Background

The protein encoded by this gene belongs to the actin family of proteins, which are highly conserved proteins that play a role in cell motility, structure and integrity. Alpha, beta and gamma actin isoforms have been identified, with alpha actins being a major constituent of the contractile apparatus, while beta and gamma actins are involved in the regulation of cell motility. This actin is an alpha actin that is found in skeletal muscle. Defects in this gene cause aortic aneurysm familial thoracic type 6. Multiple alternatively spliced variants, encoding the same protein, have been identified.

Gene Information

Gene Symbol
ACTA2

Species
Human

Gene ID
59

Swiss Prot
P62736

Synonyms
AAT6; ACTSA; MYMY5

Product Information

Description
ACTA2 Knockout cell line is engineered from HeLa cell line with Gene-Editing Technology.
Allele-1:56bp deletion in exon2
Allele-2:56bp deletion in exon2
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    CAAAAAGACAGCTA**************AACATGGCATCATC
Mut   CAAAAAGACAGCTA***Deletion***AACATGGCATCATC
Allele-1：56bp deletion in exon2
WT    CAAAAAGACAGCTA**************AACATGGCATCATC
Mut   CAAAAAGACAGCTA***Deletion***AACATGGCATCATC
Allele-2：56bp deletion in exon2
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Genome sequence analysis of PCR products from parental (WT) and ACTA2 knockout (KO) HeLa cells, using sanger sequencing.