

AXIN2 Knockdown HCT116 Cell Line, Heterozygous

Catalog No.: RM01935

Basic Information

Catalog No.

RM01935

Category

Cell Line

Parental Cell line

HCT116

Genotype

Knockdown

Gene Information

Gene Symbol

AXIN2

Species

Human

Gene ID

8313

Swiss Prot

Q9Y2T1

Synonyms

AXIL; ODCRCS

Contact

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Background

The Axin-related protein, Axin2, presumably plays an important role in the regulation of the stability of beta-catenin in the Wnt signaling pathway, like its rodent homologs, mouse conductin/rat axil. In mouse, conductin organizes a multiprotein complex of APC (adenomatous polyposis of the colon), beta-catenin, glycogen synthase kinase 3-beta, and conductin, which leads to the degradation of beta-catenin. Apparently, the deregulation of beta-catenin is an important event in the genesis of a number of malignancies. The AXIN2 gene has been mapped to 17q23-q24, a region that shows frequent loss of heterozygosity in breast cancer, neuroblastoma, and other tumors. Mutations in this gene have been associated with colorectal cancer with defective mismatch repair. [provided by RefSeq, Jul 2008]

Product Information

Description

AXIN2 Knockdown HCT116 Cell Line is engineered from HCT116 cell line with Gene-Editing Technology.

Allele-1:86bp deletion in exon1

Allele-2:87bp deletion in exon1

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

Amount1~5x10⁶ 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 TCCAACACCAGGCG*****TGGGCGATCAAGAC
Mut TCCAACACCAGGCG***Deletion***TGGGCGATCAAGAC
Allele-1: 86bp deletion in exon1
WT TTCCAACACCAGGC*****TGGGCGATCAAGAC
Mut TTCCAACACCAGGC***Deletion***TGGGCGATCAAGAC
Allele-2: 87bp deletion in exon1

Genome sequence analysis of PCR products from parental (WT) and AXIN2 Knockdown (KD) HCT116 cells, using sanger sequencing.