

CASP9 Knockout 293T Cell Line, Homozygous

Catalog No.: RM02138

Basic Information

Catalog No.

RM02138

Category

Cell Line

Parental Cell line

293T

Genotype

Knockout

Gene Information

Gene Symbol

CASP9

Species

Human

Gene ID

842

Swiss Prot

P55211

SynonymsAPAF-3; APAF3; ICE-LAP6; MCH6;
PPP1R56

Contact

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Background

This gene encodes a member of the cysteine-aspartic acid protease (caspase) family. Sequential activation of caspases plays a central role in the execution-phase of cell apoptosis. Caspases exist as inactive proenzymes which undergo proteolytic processing at conserved aspartic residues to produce two subunits, large and small, that dimerize to form the active enzyme. This protein can undergo autoproteolytic processing and activation by the apoptosome, a protein complex of cytochrome c and the apoptotic peptidase activating factor 1; this step is thought to be one of the earliest in the caspase activation cascade. This protein is thought to play a central role in apoptosis and to be a tumor suppressor. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2013]

Product Information

Description

CASP9 Knockout 293T Cell Line is engineered from 293T cell line with Gene-Editing Technology.

Allele-1:53bp deletion in exon1

Allele-2:77bp 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

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 TGCTCAGACCAGAG*****TTCTGGAGGATTG
Mut TGCTCAGACCAGAG***Deletion***TTCTGGAGGATTG
Allele-1: 53bp deletion in exon1

WT GTGCTCAGACCAGA*****ATTTAATTTIAGCA
Mut GTGCTCAGACCAGA***Deletion***ATTTAATTTIAGCA
Allele-2: 77bp deletion in exon1

Genome sequence analysis of PCR products from parental (WT) and CASP9 knockout (KO) 293T cells, using sanger sequencing.