

CAPN2 Knockout HeLa Cell Line, Homozygous

Catalog No.: RM02221

Basic Information

Catalog No.

RM02221

Category

Cell Line

Parental Cell line

HeLa

Genotype

Knockout

Gene Information

Gene Symbol

CAPN2

Species

Human

Gene ID

824

Swiss Prot

P17655

Synonyms

CANP2; CANPL2; CANPml; mCANP

Contact

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Background

The calpains, calcium-activated neutral proteases, are nonlysosomal, intracellular cysteine proteases. The mammalian calpains include ubiquitous, stomach-specific, and muscle-specific proteins. The ubiquitous enzymes consist of heterodimers with distinct large, catalytic subunits associated with a common small, regulatory subunit. This gene encodes the large subunit of the ubiquitous enzyme, calpain 2. Multiple heterogeneous transcriptional start sites in the 5' UTR have been reported. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Mar 2009]

Product Information

Description

CAPN2 Knockout cell line is engineered from HeLa cell line with Gene-Editing Technology.

Allele-1:exon2 was deleted

Allele-2:exon2 was deleted

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 TTGTGGGCTCGTT*****TGTAAGGCTGTGGG
Mut TTGTGGGCTCGTT***Deletion***TGTAAGGCTGTGGG
Allele-1: exon2 was deleted
WT TTGTGGGCTCGTT*****TGTAAGGCTGTGGG
Mut TTGTGGGCTCGTT***Deletion***TGTAAGGCTGTGGG
Allele-2: exon2 was deleted

Genome sequence analysis of PCR products from parental (WT) and CAPN2 knockout (KO) HeLa cells, using sanger sequencing.