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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

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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
1~5x10^6 cells/vial

Storage
Store at -20℃

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.

Sequencing data

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

WT    TTGTGGGTCTCGTT**************TGTAAGGCTGTGGG
Mut   TTGTGGGTCTCGTT***Deletion***TGTAAGGCTGTGGG
Allele-2: exon2 was deleted
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Genome sequence analysis of PCR products from parental (WT) and CAPN2 knockout (KO) HeLa cells, using sanger sequencing.