

CASP8 Knockout HeLa Cell Line, Homozygous

Catalog No.: RM01867

Basic Information

Catalog No.

RM01867

Category

Cell Line

Parental Cell line

HeLa

Genotype

Knockout

Gene Information

Gene Symbol

CASP8

Species

Human

Gene ID

841

Swiss Prot

Q14790

SynonymsALPS2B; CAP4; Casp-8; FLICE; MACH;
MCH5

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 composed of a prodomain, a large protease subunit, and a small protease subunit. Activation of caspases requires proteolytic processing at conserved internal aspartic residues to generate a heterodimeric enzyme consisting of the large and small subunits. This protein is involved in the programmed cell death induced by Fas and various apoptotic stimuli. The N-terminal FADD-like death effector domain of this protein suggests that it may interact with Fas-interacting protein FADD. This protein was detected in the insoluble fraction of the affected brain region from Huntington disease patients but not in those from normal controls, which implicated the role in neurodegenerative diseases. Many alternatively spliced transcript variants encoding different isoforms have been described, although not all variants have had their full-length sequences determined. [provided by RefSeq, Jul 2008]

Product Information

Description

CASP8 Knockout HeLa Cell Line is engineered from HeLa cell line with Gene-Editing Technology.

Allele-1:118bp deletion in exon1

Allele-2:118bp 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 TGGACTACATTCCG*****GACTGGATTGCTG
Mut TGGACTACATTCCG***Deletion***GACTGGATTGCTG
Allele-1: 118bp deletion in exon1

WT TGGACTACATTCCG*****GACTGGATTGCTG
Mut TGGACTACATTCCG***Deletion***GACTGGATTGCTG
Allele-2: 118bp deletion in exon1

Genome sequence analysis of PCR products from parental (WT) and CASP8 knockout (KO) HeLa cells, using sanger sequencing.