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HSPD1 Knockdown HeLa Cell Line, Heterozygous

Catalog No.: RM02210

Basic Information

Catalog No.

RM02210

Category

Cell Line

Parental Cell line

HeLa

Genotype

Knockdown

Background

This gene encodes a member of the chaperonin family. The encoded mitochondrial protein may function as a signaling molecule in the innate immune system. This protein is essential for the folding and assembly of newly imported proteins in the mitochondria. This gene is adjacent to a related family member and the region between the 2 genes functions as a bidirectional promoter. Several pseudogenes have been associated with this gene. Two transcript variants encoding the same protein have been identified for this gene. Mutations associated with this gene cause autosomal recessive spastic paraplegia 13. [provided by RefSeq, Jun 2010]

Gene Information

Gene Symbol

HSPD1

Species

Human

Gene ID

3329

Swiss Prot

P10809

Synonyms

CPN60; GROEL; HLD4; HSP-60; HSP60; HSP65; HuCHA60; SPG13

Contact

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Product Information

Description

HSPD1 Knockdown HeLa cell line is engineered from HeLa cell line with Gene-Editing Technology.

Allele-1:WT

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

Amount

Dry ice

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 $37^{\circ}C$ 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 AAATCATCCTTAGG***************ACCTAAGGAAAGTG
Mut AAATCATCCTTAGG***Deletion***ACCTAAGGAAAGTG
Allele-1: WT

WT AAATCATCCTTAGG*************ACCTAAGGAAAGTG
Mut AAATCATCCTTAGG***Deletion***ACCTAAGGAAAGTG
Allele-2: exon2 was deleted

Genome sequence analysis of PCR products from parental (WT) and HSPD1 Knockdown (KD) HeLa cells, using sanger sequencing.