# HSPD1 Knockdown HeLa Cell Line, Heterozygous

Catalog No.: RM02210



## **Basic Information**

Catalog No. RM02210

Category Cell Line

Parental Cell line HeLa

Genotype Knockdown

## **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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## 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]

# **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 Dry ice

Amount 1~5x10<sup>6</sup> 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% CO<sub>2</sub> 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.
- 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%  $CO_2$ .
- 7. A subcultivation ratio of 1:2-1:4 is recommended.

# Sequencing data

WT AAATCATCCTTAGG\*\*\*\*Deletion\*\*\*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.