# SDHB Knockdown 293T Cell Line, Heterozygous

Catalog No.: RM02619



## **Basic Information**

Catalog No. RM02619

Category Cell Line

Parental Cell line 293T

Genotype Knockdown

## **Gene Information**

Gene Symbol SDHB

Species Human

Gene ID 6390

Swiss Prot P21912

Synonyms CWS2; IP; PGL4; SDH; SDH1; SDH2; SDHIP

#### Contact

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## Background

Complex II of the respiratory chain, which is specifically involved in the oxidation of succinate, carries electrons from FADH to CoQ. The complex is composed of four nuclearencoded subunits and is localized in the mitochondrial inner membrane. The iron-sulfur subunit is highly conserved and contains three cysteine-rich clusters which may comprise the iron-sulfur centers of the enzyme. Sporadic and familial mutations in this gene result in paragangliomas and pheochromocytoma, and support a link between mitochondrial dysfunction and tumorigenesis. [provided by RefSeq, Jul 2008]

## **Product Information**

#### Description

SDHB Knockdown 293T Cell Line is engineered from 293T cell line with Gene-Editing technology.

Allele-1:exon1 was deleted

Allele-2:WT

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 GATGTTCGACGGGA\*\*\*\*\*\*\*\*\*\*TTAGGGCACGGGC Mut GATGTTCGACGGGA\*\*\*Deletion\*\*\*TTAGGGCACGGGC Allele-1: exon1 was deleted

WT GATGTTCGACGGGA\*\*\*\*\*\*\*\*\*\*TTAGGGCACGGGC Mut GATGTTCGACGGGA\*\*\*\*\*\*\*\*\*\*\*\*\*TTAGGGCACGGGC Allele-2: WT Genome sequence analysis of PCR products from parental (WT) and SDHB Knockdown (KD) 293T cells, using sanger sequencing.