

CPS1 Knockout HeLa Cell Lysate, Homozygous

Catalog No.: RM50031

Basic Information

Catalog No.

RM50031

Category

Cell Lysate

Parental Cell line

HeLa

Genotype

Knockout

Gene Information

Gene Symbol

CPS1

Species

Human

Gene ID

1373

Swiss Prot

P31327

Synonyms

PHN; GATD6; CPSASE1; CPS1

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Background

The mitochondrial enzyme encoded by this gene catalyzes synthesis of carbamoyl phosphate from ammonia and bicarbonate. This reaction is the first committed step of the urea cycle, which is important in the removal of excess urea from cells. The encoded protein may also represent a core mitochondrial nucleoid protein. Three transcript variants encoding different isoforms have been found for this gene. The shortest isoform may not be localized to the mitochondrion. Mutations in this gene have been associated with carbamoyl phosphate synthetase deficiency, susceptibility to persistent pulmonary hypertension, and susceptibility to venoocclusive disease after bone marrow transplantation.

Product Information

Description

CPS1 Knockout cell line is engineered from HeLa cell line with Gene-Editing Technology.

Allele-1:116bp deletion in exon14

Allele-2:116bp deletion in exon14

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 Lysate and 1 vial knockout cell Lysate

Shipping Conditions

4°C

Amount

50µL, 2µg/µL.

Storage

Lysate is stable for 12 months when stored at -20°C. Minimizing freeze-thaw cycles.

Protocol

To be used as WB control. Lysate is supplied in 1× SDS sample buffer (2% SDS, 60 mM Tris-HCl pH 6.8, 10% Glycerol, 0.02% Bromophenol blue, 60 mM beta-mercaptoethanol). Lysate should be boiled for 3 - 5 minutes before loading onto gel.

Sequencing data

WT TGTTCGATGAACC*****GGGTTAATTCTGGG
Mut TGTTCGATGAACC**Deletion**GGGTTAATTCTGGG
Allele-1: 116bp deletion in exon14

Genome sequence analysis of PCR products from parental (WT) and CPS1 knockout (KO) HeLa cells, using sanger sequencing.

WT TGTTCGATGAACC*****GGGTTAATTCTGGG
Mut TGTTCGATGAACC**Deletion**GGGTTAATTCTGGG
Allele-2: 116bp deletion in exon14