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LDHB Knockout 293T Cell Line, Homozygous

Catalog No.: RM02737

Basic Information

Catalog No.
RM02737

Category
Cell Line

Parental Cell line
293T

Genotype
Knockout

Gene Information

Gene Symbol
LDHB

Species
Human

Gene ID
3945

Swiss Prot
P07195

Synonyms
LDH-B; LDH-H; LDHBD; TRG-5; HEL-S-281; LDHB

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Background

This gene encodes the B subunit of lactate dehydrogenase enzyme, which catalyzes the interconversion of pyruvate and lactate with concomitant interconversion of NADH and NAD+ in a post-glycolysis process. Alternatively spliced transcript variants have been found for this gene. Recent studies have shown that a C-terminally extended isoform is produced by use of an alternative in-frame translation termination codon via a stop codon readthrough mechanism, and that this isoform is localized in the peroxisomes. Mutations in this gene are associated with lactate dehydrogenase B deficiency. Pseudogenes have been identified on chromosomes X, 5 and 13.

Product Information

Description
LDHB Knockout cell line is engineered from 293T cell line with Gene-Editing Technology.
Allele-1:134bp deletion in exon3
Allele-2:134bp deletion in exon3
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
1~5x10^6 cells/vial.

Storage
Stored in liquid nitrogen for a long time less than -130℃. 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℃ with 5% CO_2 condition.
1. Thaw the vial in 37℃ 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℃ incubator with 5% CO_2.
7. A subcultivation ratio of 1:2-1:4 is recommended.

Sequencing data

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WT    CAGTGTAGCTCAAG**********TACAGTCCTGATTG
Mut   CAGTGTAGCTCAAG***Deletion***TACAGTCCTGATTG
Allele-1:   134bp deletion in exon3

WT    CAGTGTAGCTCAAG**********TACAGTCCTGATTG
Mut   CAGTGTAGCTCAAG***Deletion***TACAGTCCTGATTG
Allele-2:   134bp deletion in exon3
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Genome sequence analysis of PCR products from parental (WT) and LDHB knockout (KO) 293T cells, using sanger sequencing.