

HPRT1 Knockout 293T Cell Line, Homozygous

Catalog No.: RM02246

Basic Information

Catalog No.

RM02246

Category

Cell Line

Parental Cell line

293T

Genotype

Knockout

Gene Information

Gene Symbol

HPRT1

Species

Human

Gene ID

3251

Swiss Prot

P00492

Synonyms

HGPRT; HPRT

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Background

The protein encoded by this gene is a transferase, which catalyzes conversion of hypoxanthine to inosine monophosphate and guanine to guanosine monophosphate via transfer of the 5-phosphoribosyl group from 5-phosphoribosyl 1-pyrophosphate. This enzyme plays a central role in the generation of purine nucleotides through the purine salvage pathway. Mutations in this gene result in Lesch-Nyhan syndrome or gout.[provided by RefSeq, Jun 2009]

Product Information

Description

HPRT1 Knockout cell line is engineered from 293T cell line with Gene-Editing Technology.

Allele-1:exon1 was deleted

Allele-2:exon1 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

1~5x10⁶ 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°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 CGCGCCGGCCGGCT*****AGTGCGGGCTCGGG
Mut CGCGCCGGCCGGCT***Deletion***AGTGCGGGCTCGGG
Allele-1: exon1 was deleted
WT CGCGCCGGCCGGCT*****AGTGCGGGCTCGGG
Mut CGCGCCGGCCGGCT***Deletion***AGTGCGGGCTCGGG
Allele-2: exon1 was deleted

Genome sequence analysis of PCR products from parental (WT) and HPRT1 knockout (KO) 293T cells, using sanger sequencing.