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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
1~5x10^6 cells/vial

Storage
Store at -20℃

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    CGCGCCGGCCGGCT**************AGTGCGGGCTCGGG
Mut   CGCGCCGGCCGGCT***Deletion***AGTGCGGGCTCGGG
Allele-1: exon1 was deleted

WT    CGCGCCGGCCGGCT**************AGTGCGGGCTCGGG
Mut   CGCGCCGGCCGGCT***Deletion***AGTGCGGGCTCGGG
Allele-2: exon1 was deleted
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Genome sequence analysis of PCR products from parental (WT) and HPRT1 knockout (KO) 293T cells, using sanger sequencing.