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# ARG1 Knockout HeLa Cell Line, Homozygous

**Catalog No.: RM02193**

## Basic Information

**Catalog No.**
RM02193

**Category**
Cell Line

**Parental Cell line**
HeLa

**Genotype**
Knockout

## Background

Arginase catalyzes the hydrolysis of arginine to ornithine and urea. At least two isoforms of mammalian arginase exist (types I and II) which differ in their tissue distribution, subcellular localization, immunologic crossreactivity and physiologic function. The type I isoform encoded by this gene, is a cytosolic enzyme and expressed predominantly in the liver as a component of the urea cycle. Inherited deficiency of this enzyme results in argininemia, an autosomal recessive disorder characterized by hyperammonemia. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2011]

## Gene Information

**Gene Symbol**
ARG1

**Species**
Human

**Gene ID**
383

**Swiss Prot**
P05089

## Contact


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## Product Information

**Description**
ARG1 Knockout cell line is engineered from HeLa cell line with Gene-Editing Technology.
Allele-1:67bp deletion in exon3
Allele-2:88bp 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**
1~5x$10^6$ 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

```
WT    TTAT*************CAAA*GAGC*************GCTG
Mut   TTAT***Deletion***CAAA*GAGC***Deletion***GCTG
Allele-1:    67bp deletion in exon3

WT    GTGATGTGAAGGAT*************AGCTGGCTGGCAAG
Mut   GTGATGTGAAGGAT***Deletion***AGCTGGCTGGCAAG
Allele-2:    88bp deletion in exon3
```

Genome sequence analysis of PCR products from parental (WT) and ARG1 knockout (KO) HeLa cells, using sanger sequencing.