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PARK2 Knockout 293T Cell Line, Homozygous

Catalog No.: RM01813

Basic Information

Catalog No.
RM01813

Category
Cell Line

Parental Cell line
293T

Genotype
Knockout

Gene Information

Gene Symbol
PRKN

Species
Human

Gene ID
5071

Swiss Prot
O60260

Synonyms
AR-JP; LPRS2; PARK2; PDJ

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Background

The precise function of this gene is unknown; however, the encoded protein is a component of a multiprotein E3 ubiquitin ligase complex that mediates the targeting of substrate proteins for proteasomal degradation. Mutations in this gene are known to cause Parkinson disease and autosomal recessive juvenile Parkinson disease. Alternative splicing of this gene produces multiple transcript variants encoding distinct isoforms. Additional splice variants of this gene have been described but currently lack transcript support.

Product Information

Description
PARK2 Knockout cell line is engineered from 293T cell line with Gene-Editing Technology.
Allele-1:89bp deletion in exon2
Allele-2:89bp deletion in exon2
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    ATGGTTTCCCAGTG**************CGCAGGGAAGGAGC
Mut   ATGGTTTCCCAGTG***Deletion***CGCAGGGAAGGAGC
Allele-1: 89bp deletion in exon2

WT    ATGGTTTCCCAGTG**************CGCAGGGAAGGAGC
Mut   ATGGTTTCCCAGTG***Deletion***CGCAGGGAAGGAGC
Allele-2: 89bp deletion in exon2
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Genome sequence analysis of PCR products from parental (WT) and PARK2 knockout (KO) 293T cells, using sanger sequencing.